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OM protein - protein search, using sw model

Run on: January 20, 2006, 14:50:54 ; Search time 59.6445 Seconds  
(without alignments)  
4336.296 Million cell updates/sec

Title: US-10-849-814-12  
Perfect score: 3321  
Sequence: 1 MKNTISCLTALLSASQLHA.....QRIFHDVNNATYIEFSVLKD 619

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000  
Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Published Applications AA\_Main:\*  
1: /cgn2\_6/prodata/1/pubpaa/US07\_PUBCOMB.pep.\*  
2: /cgn2\_6/prodata/1/pubpaa/US08\_PUBCOMB.pep.\*  
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5: /cgn2\_6/prodata/1/pubpaa/US10B\_PUBCOMB.pep.\*  
6: /cgn2\_6/prodata/1/pubpaa/US11\_PUBCOMB.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	3321	100.0	619	US-10-763-179-12	Sequence 12, Appl
2	3321	100.0	619	US-10-849-814-12	Sequence 12, Appl
3	3321	100.0	619	US-10-855-533-12	Sequence 12, Appl
4	3321	100.0	619	US-10-859-405-12	Sequence 12, Appl
5	3321	100.0	619	US-10-876-673-12	Sequence 12, Appl
6	3321	100.0	619	US-11-050-829-20	Sequence 20, Appl
7	2198.5	66.2	616	US-10-763-179-6	Sequence 6, Appl
8	2198.5	66.2	616	US-10-849-814-6	Sequence 6, Appl
9	2198.5	66.2	616	US-10-855-533-6	Sequence 6, Appl
10	2198.5	66.2	616	US-10-859-405-6	Sequence 6, Appl
11	2198.5	66.2	616	US-10-876-673-6	Sequence 6, Appl
12	2198.5	66.2	616	US-11-050-829-14	Sequence 14, Appl
13	2198.5	66.2	616	US-11-085-578-12	Sequence 12, Appl
14	2187.5	65.9	594	US-11-085-576-3	Sequence 3, Appl
15	2081	62.7	625	US-10-763-179-18	Sequence 18, Appl
16	2081	62.7	625	US-10-855-533-18	Sequence 18, Appl
17	2081	62.7	625	US-10-876-673-18	Sequence 18, Appl
18	1618	48.7	645	US-10-763-179-23	Sequence 23, Appl
19	1618	48.7	645	US-10-855-533-23	Sequence 23, Appl
20	1618	48.7	645	US-10-876-673-23	Sequence 23, Appl
21	1402.5	42.2	644	US-10-763-179-27	Sequence 27, Appl
22	1402.5	42.2	644	US-10-855-533-27	Sequence 27, Appl
23	1402.5	42.2	644	US-10-876-673-27	Sequence 27, Appl
24	1402	42.2	620	US-10-763-179-25	Sequence 25, Appl
25	1402	42.2	620	US-10-855-533-25	Sequence 25, Appl
26	1402	42.2	620	US-10-876-673-25	Sequence 25, Appl
27	356	10.7	549	US-10-482-706-197	Sequence 197, App

ALIGNMENTS

RESULT 1

US-10-763-179-12  
; Sequence 12, Application US/10763179  
; Publication No. US20040204577A1  
; GENERAL INFORMATION:  
; APPLICANT: HARA, SEIICHI  
; APPLICANT: YOKOZAKI, KENZO  
; APPLICANT: ABE, ISAO  
; APPLICANT: TONOUCHI, NAOTO  
; APPLICANT: JOJIMA, YASUKO  
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES  
; FILE REFERENCE: 247848U0  
; CURRENT APPLICATION NUMBER: US/10763,179  
; CURRENT FILING DATE: 2004-01-26  
; PRIOR APPLICATION NUMBER: JP 2003-16765  
; PRIOR FILING DATE: 2003-01-24  
; PRIOR APPLICATION NUMBER: US 60/491,612  
; PRIOR FILING DATE: 2003-08-01  
; NUMBER OF SEQ ID NOS: 27  
; SOFTWARE: Patentin version 3.1  
; SEQ ID NO 12  
; LENGTH: 619  
; TYPE: PRT  
; ORGANISM: Sphingobacterium sp.  
US-10-763-179-12

Query Match	100.0%;	Score 3321;	DB 4;	Length 619;
Best Local Similarity	100.0%;	Pred. No. 3.2e-260;		
Matches 619;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;
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Db	1	MKNTISCLTALLSASQLHAQTAADSAYVRDHYEKTVAIPMRDGGKLTATYSPKDKSK	60	
QY	61	KYPVLLNTPYTVSPYQNEYKKSIGNPQMMREGIVFYQDVRGKWMSEGDFEDIRPTT	120	
Db	61	KYPVLLNTPYTVSPYQNEYKKSIGNPQMMREGIVFYQDVRGKWMSEGDFEDIRPTT	120	
QY	121	YSKDKKAIDESTDYYDALEWLQKLNKYNAGKAGLYGISYPGYSTVGLVKTHPSLXAVSP	180	
Db	121	YSKDKKAIDESTDYYDALEWLQKLNKYNAGKAGLYGISYPGYSTVGLVKTHPSLXAVSP	180	
QY	181	QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPTTPDQFKGKIQIKKADKNFFA	240	
Db	181	QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPTTPDQFKGKIQIKKADKNFFA	240	
QY	241	EAGTARELKEKYPGDSVOFMDLFXHDPYDDFWKSRVITNSLQEVKPAVMVVGFFDAED	300	
Db	241	EAGTARELKEKYPGDSVOFMDLFXHDPYDDFWKSRVITNSLQEVKPAVMVVGFFDAED	300	

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Db 301 AYGTFTYQSIEDSKSKNNLSILVAGPWYHGWRVRAEGNYLGDIOFEKKTSTITYQBFQRP 360
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Db 361 FFYYLKDGNFAPSEANI FVSGSNEMKHFQWPPKKNVETKKLYFPQOGKLGFDKVRQTD 420
QY 421 SWDEVVTDPNKVPVPHQGGVIONRTREYMVDQDORFAASRPDMVYQTEPLTDLITVGPBK 480
Db 421 SWDEVVTDPNKVPVPHQGGVIONRTREYMVDQDORFAASRPDMVYQTEPLTDLITVGPBK 480
QY 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQCKTMAGYQMMVRGEIMAGKYRNGFDKQAL 540
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QY 601 RIFHDVNNATYIEFSVLKD 619
Db 601 RIFHDVNNATYIEFSVLKD 619

RESULT 2
US-10-849-814-12
; Sequence 12, Application US/10849814
; Publication No. US20040219631A1
; GENERAL INFORMATION:
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: SUZUKI, SONOKO
; APPLICANT: HARA, SEIICHI
; APPLICANT: ABE, ISAO
; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN TRIPEPTIDES
; FILE REFERENCE: 252308US01
; CURRENT APPLICATION NUMBER: US/10/849,814
; CURRENT FILING DATE: 2004-05-21
; PRIOR APPLICATION NUMBER: PCT/JP03/09466
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: JP 2002-218958
; PRIOR FILING DATE: 2002-07-26
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 12
; LENGTH: 619
; TYPE: PRT
; ORGANISM: Sphingobacterium sp.
US-10-849-814-12

Query Match 100.0%; Score 3321; DB 5; Length 619;
Best Local Similarity 100.0%; Pred. No. 3.2e-260;
Matches 619; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKNTISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGKLLFTAIYSPKDKSK 60
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Db 61 KYPVLLNRTPTVTSYQNEYKKSIGNFPQMMREGYIFVYQDVRGKMWSEGDFFEDIRPTT 120
QY 121 YSKDKKAIDESTDVTDALEWLQKLNKYNKGAGLYGISYPGFYSTVGLVKTHPSLKAVSP 180
Db 121 YSKDKKAIDESTDVTDALEWLQKLNKYNKGAGLYGISYPGFYSTVGLVKTHPSLKAVSP 180
QY 181 QAPVTDWYIGDDFHNGVLFQDAFTFMSFGVPRPKPITPDQFKGKIQIKEADKYNFFA 240
Db 181 QAPVTDWYIGDDFHNGVLFQDAFTFMSFGVPRPKPITPDQFKGKIQIKEADKYNFFA 240
QY 241 EAGTARELKEYFGDSVQFWDNLFKHPDYPDFWKSRTVITNSIQEYKPAVMVVGFFDAED 300
Db 241 EAGTARELKEYFGDSVQFWDNLFKHPDYPDFWKSRTVITNSIQEYKPAVMVVGFFDAED 300
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Db 361 FFYYLKDGNFAPSEANI FVSGSNEMKHFQWPPKKNVETKKLYFPQOGKLGFDKVRQTD 420
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Db 421 SWDEVVTDPNKVPVPHQGGVIONRTREYMVDQDORFAASRPDMVYQTEPLTDLITVGPBK 480
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Db 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQCKTMAGYQMMVRGEIMAGKYRNGFDKQAL 540
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Db 541 TPGMVEKVNFPMPDVAHTFKKGHRIMVQVQNSWFFLAERNPQVFLAPYTATKADFRKATQ 600
QY 601 RIFHDVNNATYIEFSVLKD 619
Db 601 RIFHDVNNATYIEFSVLKD 619

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US-10-855-533-12
; Sequence 12, Application US/10855533
; Publication No. US20050019864A1
; GENERAL INFORMATION:
; APPLICANT: HARA, SEIICHI
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: ABE, ISAO
; APPLICANT: TONOUCHI, NAOTO
; APPLICANT: JOJIMA, YASUOKO
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES
; FILE REFERENCE: 253783US0
; CURRENT APPLICATION NUMBER: US/10/855,533
; CURRENT FILING DATE: 2004-05-28
; PRIOR APPLICATION NUMBER: PCT/JP03/09468
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: JP 2002-218957
; PRIOR FILING DATE: 2002-07-26
; PRIOR APPLICATION NUMBER: JP 2003-16765
; PRIOR FILING DATE: 2003-01-24
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 12
; LENGTH: 619
; TYPE: PRT
; ORGANISM: Sphingobacterium sp.
US-10-855-533-12

Query Match 100.0%; Score 3321; DB 5; Length 619;
Best Local Similarity 100.0%; Pred. No. 3.2e-260;
Matches 619; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKNTISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGKLLFTAIYSPKDKSK 60
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Db 61 KYPVLLNRTPTVTSYQNEYKKSIGNFPQMMREGYIFVYQDVRGKMWSEGDFFEDIRPTT 120
QY 121 YSKDKKAIDESTDVTDALEWLQKLNKYNKGAGLYGISYPGFYSTVGLVKTHPSLKAVSP 180
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Db 181 QAPVTDWYIGDDFHNGVLFQDAFTFMSFGVPRPKPITPDQFKGKIQIKEADKYNFFA 240
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RESULT 4
US-10-859-405-12
; Sequence 12, Application US/10859405
; Publication No. US20050032154A1
; GENERAL INFORMATION:
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: SUZUKI, SONOKO
; APPLICANT: HARA, SEIICHI
; APPLICANT: ABE, ISAO
; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN
; FILE REFERENCE: 254070US0
; CURRENT APPLICATION NUMBER: US/10/859,405
; PRIOR FILING DATE: 2004-06-03
; PRIOR APPLICATION NUMBER: US 60/491,547
; PRIOR FILING DATE: 2003-08-01
; PRIOR APPLICATION NUMBER: JP 2002-218958
; PRIOR FILING DATE: 2002-07-26
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 12
; LENGTH: 619
; TYPE: PRT
; ORGANISM: Sphingobacterium sp.
US-10-859-405-12

Query Match 100.0%; Score 3321; DB 5; Length 619;
Best Local Similarity 100.0%; Pred. No. 3.2e-260;
Matches 619; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 1 MNTTISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGGKCLFTAIYSPKDKSK 60
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QY 121 YSKDKKAIDESTDVTDALEWLNKYNKAGLYGISYPGFYSTVGLVKTHPSLKAVSP 180
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Db 121 YSKDKKAIDESTDVTDALEWLNKYNKAGLYGISYPGFYSTVGLVKTHPSLKAVSP 180
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Db 301 AYTFTKTYQSIEDSKKNNILVAGPWYHGGWVRAEGNYLGDIOFEKKTSTITYQEFQEP 360
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QY 361 FFXYLKDSEGNPAPSEANI FVSGSNEWKHFEQWPPKNNVETKKLYFQPOQKLGFDKQVQRTD 420
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Db 361 FFXYLKDSEGNPAPSEANI FVSGSNEWKHFEQWPPKNNVETKKLYFQPOQKLGFDKQVQRTD 420
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Db 421 SWDEYVTDPNKVPVHGGVIOQNTREYMYDDQRFPAASRPDMVMVYQTEPLETDLTI VGP I K 480
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Db 541 TPGMVEKNFEMPDPVAHTFKKGRIMVQVNSWFFLAERNPOVFLAPYTATKADFRKATQ 600
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Db 601 RIFHDVNNATYIEFSVLKD 619
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RESULT 5
US-10-876-673-12
; Sequence 12, Application US/10876673
; Publication No. US20050124035A1
; GENERAL INFORMATION:
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: OHNO, AYAKO
; APPLICANT: HARA, SEIICHI
; APPLICANT: ABE, ISAO
; TITLE OF INVENTION: METHOD FOR PRODUCING ALPHA-L-ASPARTYL-L-PHENYLALANINE-BETA-ESTER
; TITLE OF INVENTION: AND METHOD FOR PRODUCING
; FILE REFERENCE: 254836US0PCT
; CURRENT APPLICATION NUMBER: US/10/876,673
; CURRENT FILING DATE: 2004-06-28
; PRIOR APPLICATION NUMBER: PCT/JP2004/000620
; PRIOR FILING DATE: 2004-01-23
; PRIOR APPLICATION NUMBER: JP 2003-016764
; PRIOR FILING DATE: 2003-01-24
; PRIOR APPLICATION NUMBER: JP 2003-201819
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: US 60/491,546
; PRIOR FILING DATE: 2003-08-01
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 12
; LENGTH: 619
; TYPE: PRT
; ORGANISM: Sphingobacterium sp.
US-10-876-673-12

Query Match 100.0%; Score 3321; DB 5; Length 619;
Best Local Similarity 100.0%; Pred. No. 3.2e-260;
Matches 619; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNTTISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGGKCLFTAIYSPKDKSK 60
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Db 1 MNTTISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGGKCLFTAIYSPKDKSK 60
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QY 61 KYPVLLNRTPTVTSYGNEYKKSIGNFPQMMREGYIFVYQVGRKWMSEGGFEDIRPTT 120
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Db 61 KYPVLLNRTPTVTSYGQNEKKSLGNFPQMMREGYIFVYQDVRGKMWSEGDFFDIRPTT 120  
Qy 121 YSKDKKAIDESTDTYDALEWLQKNLKNYNGKAGLYGISYPGFYSTVGLVKTHTPSLKAVSP 180  
Db 121 YSKDKKAIDESTDTYDALEWLQKNLKNYNGKAGLYGISYPGFYSTVGLVKTHTPSLKAVSP 180  
Qy 181 QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPIITPDQFKGKIQIKEADKYNFFA 240  
Db 181 QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPIITPDQFKGKIQIKEADKYNFFA 240  
Qy 241 EAGTARELKEKYFGDSVQFVNDLFKHPDYDDFWKSRVITNSLQEVKPAVMVVGFFDAED 300  
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Db 301 AYGTFTKYQSIEDSKSKNNSILVAGPWYHGGWVRAEGNYLGDIOFEKKTSTITYQEQFEP 360  
Qy 361 PFKYLLKDEGNFAPSEANIIFVSGSNEWKHFEQWPPKXVETKKLYFPQOGKLGFDKVKQRTD 420  
Db 361 PFKYLLKDEGNFAPSEANIIFVSGSNEWKHFEQWPPKXVETKKLYFPQOGKLGFDKVKQRTD 420  
Qy 421 SWDEVYVTDPNKVPVPHQGGVIGNRTREYVMDQDFAASRPDMVYQTEPLTDLTIVGPIK 480  
Db 421 SWDEVYVTDPNKVPVPHQGGVIGNRTREYVMDQDFAASRPDMVYQTEPLTDLTIVGPIK 480  
Qy 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQKTMAGYQMMVRGEIMAGKYRNGFDKAQAL 540  
Db 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQKTMAGYQMMVRGEIMAGKYRNGFDKAQAL 540  
Qy 541 TPGMVEKYNFEMPVDAHTFKKGRIMVQVQNSWFFPLAERNQVFLAPYTATKADFRKATQ 600  
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Db 601 RIFHDVNNATYIEFSLVKD 619

RESULT 6  
US-11-050-829-20  
; Sequence 20, Application US/11050829  
; Publication No. US20050176150A1  
; GENERAL INFORMATION:  
; APPLICANT: KIRA, IKUO  
; APPLICANT: YOKOZEKI, KENZO  
; APPLICANT: SONOKI, SONOKI  
; APPLICANT: MIHARA, YASUHIRO  
; APPLICANT: HIRAO, YOSHINORI  
; TITLE OF INVENTION: MUTANT MICROORGANISM AND METHOD FOR PRODUCING PEPTIDE USING THE  
; FILE REFERENCE: 265063USO  
; CURRENT APPLICATION NUMBER: US/11/050,829  
; CURRENT FILING DATE: 2005-02-07  
; PRIOR APPLICATION NUMBER: US 60/617,060  
; PRIOR FILING DATE: 2004-10-12  
; PRIOR APPLICATION NUMBER: JP 2004-029844  
; PRIOR FILING DATE: 2004-02-05  
; NUMBER OF SEQ ID NOS: 22  
; SOFTWARE: PatentIn version 3.3  
; SEQ ID NO 20  
; LENGTH: 619  
; TYPE: PRT  
; ORGANISM: Sphingobacterium sp.  
US-11-050-829-20

Query Match 100.0%; Score 3321; DB 6; Length 619;  
Best Local Similarity 100.0%; Pred. No. 3.2e-260;  
Matches 619; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 MKNTISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGGKLFITAIYSPKDKSK 60  
Db 1 MKNTISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGGKLFITAIYSPKDKSK 60

Qy 61 KYPVLLNRTPTVTSYGQNEKKSLGNFPQMMREGYIFVYQDVRGKMWSEGDFFDIRPTT 120  
Db 61 KYPVLLNRTPTVTSYGQNEKKSLGNFPQMMREGYIFVYQDVRGKMWSEGDFFDIRPTT 120  
Qy 121 YSKDKKAIDESTDTYDALEWLQKNLKNYNGKAGLYGISYPGFYSTVGLVKTHTPSLKAVSP 180  
Db 121 YSKDKKAIDESTDTYDALEWLQKNLKNYNGKAGLYGISYPGFYSTVGLVKTHTPSLKAVSP 180  
Qy 181 QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPIITPDQFKGKIQIKEADKYNFFA 240  
Db 181 QAPVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPIITPDQFKGKIQIKEADKYNFFA 240  
Qy 241 EAGTARELKEKYFGDSVQFVNDLFKHPDYDDFWKSRVITNSLQEVKPAVMVVGFFDAED 300  
Db 241 EAGTARELKEKYFGDSVQFVNDLFKHPDYDDFWKSRVITNSLQEVKPAVMVVGFFDAED 300  
Qy 301 AYGTFTKYQSIEDSKSKNNSILVAGPWYHGGWVRAEGNYLGDIOFEKKTSTITYQEQFEP 360  
Db 301 AYGTFTKYQSIEDSKSKNNSILVAGPWYHGGWVRAEGNYLGDIOFEKKTSTITYQEQFEP 360  
Qy 361 PFKYLLKDEGNFAPSEANIIFVSGSNEWKHFEQWPPKXVETKKLYFPQOGKLGFDKVKQRTD 420  
Db 361 PFKYLLKDEGNFAPSEANIIFVSGSNEWKHFEQWPPKXVETKKLYFPQOGKLGFDKVKQRTD 420  
Qy 421 SWDEVYVTDPNKVPVPHQGGVIGNRTREYVMDQDFAASRPDMVYQTEPLTDLTIVGPIK 480  
Db 421 SWDEVYVTDPNKVPVPHQGGVIGNRTREYVMDQDFAASRPDMVYQTEPLTDLTIVGPIK 480  
Qy 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQKTMAGYQMMVRGEIMAGKYRNGFDKAQAL 540  
Db 481 NFLKVSSTGTADYVVKLIDVYPNDAASYQKTMAGYQMMVRGEIMAGKYRNGFDKAQAL 540  
Qy 541 TPGMVEKYNFEMPVDAHTFKKGRIMVQVQNSWFFPLAERNQVFLAPYTATKADFRKATQ 600  
Db 541 TPGMVEKYNFEMPVDAHTFKKGRIMVQVQNSWFFPLAERNQVFLAPYTATKADFRKATQ 600  
Qy 601 RIFHDVNNATYIEFSLVKD 619  
Db 601 RIFHDVNNATYIEFSLVKD 619

RESULT 7  
US-10-763-179-6  
; Sequence 6, Application US/10763179  
; Publication No. US20040204577A1  
; GENERAL INFORMATION:  
; APPLICANT: HARA, SEIICHI  
; APPLICANT: YOKOZEKI, KENZO  
; APPLICANT: ABE, ISAO  
; APPLICANT: TONOUCHI, NAOTO  
; APPLICANT: JOJIMA, YASUKO  
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES  
; FILE REFERENCE: 247848USO  
; CURRENT APPLICATION NUMBER: US/10/763,179  
; CURRENT FILING DATE: 2004-01-26  
; PRIOR APPLICATION NUMBER: JP 2003-16765  
; PRIOR FILING DATE: 2003-01-24  
; PRIOR APPLICATION NUMBER: US 60/491,612  
; PRIOR FILING DATE: 2003-08-01  
; NUMBER OF SEQ ID NOS: 27  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 6  
; LENGTH: 616  
; TYPE: PRT  
; ORGANISM: Empedobacter brevis  
US-10-763-179-6

Query Match 66.2%; Score 2198.5; DB 4; Length 616;  
Best Local Similarity 64.3%; Pred. No. 3.3e-169;  
Matches 395; Conservative 85; Mismatches 129; Indels 5; Gaps 2;  
Qy 5 ISCLTALLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDGGKLFITAIYSPKDKSKYPV 64

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Db      8  VTLLTLLGSGTVGFAQDAKADSAAYVRDNYEKIEQVIMRDGKGLFTAIYQPKDKTKQYPV 67
Qy      65  LLNRPYTVSPYQONEYKKSGLNFPQMMREGYIFVYQDVRGKWMSEGDPEDIRPTTYSKD 124
Db      68  LLNRPYTVAPYGVNEYKKSGLNFPTEMREGYIFVYQDVRGKWMSEGEFEDVRPINPSKS 127
Qy     125  KKAIDESTDYYDALBWLQNLKNYNGKAGLYGISYPGFYSTVGLVKTHPSLKAQSPQAPV 184
Db     128  KKAIDESTDTFTLEWLAKNLKNYTKAGIYGISYPGFYSTVGLVNSHPSLKAQSPQAPV 187
Qy     185  TDWYLGDDPHNGVLFLODAFTPMSTFGVPRPKPTTPQFKGKIQIKKADKKNFABAGT 244
Db     188  TNWFLGDDPHNGVLFNDSPFMTFFGVKRPQPTTPDKGPKRFYPIKONTYRFA-SGS 246
Qy     245  ARELKEKYFGDSVQFQWDLFKHPDYDDFWKSRVITNSLOEVKPAVMVVGPFDAEDAYGT 304
Db     247  VKELKDKYLQDNIKFYNDLFAHPDYDQFQDRNVLPHTNVQPAVMVVGPFDAEDVYGA 306
Qy     305  FKTYQSIEDKSKNNNSILVAGPWYHGGWVRABGNVLDIQFEKKTSTITYQEQFQPFYKY 364
Db     307  FETYKAIEKQNPKATNIMVAGFWHGGWVRSGSTFGDMQFASNTSEHYQOEIELPFYNY 366
Qy     365  YLKDEGNFAPSEANIFVSGSNWKGHEQWPKNVETKKLYFQPOGKLGFDKQVOTDSWDE 424
Db     367  YLKDKGNFKPTEATFITGSGNEKQFQDAMPKKNVTQKIYLOQNGKIAFNKNTNTTTFDE 426
Qy     425  YVTDNPKVPVPHOGVIONRTREYVDDQFPAASRDPMVYQTEPLTDLTIYVPIKKNFLK 484
Db     427  YVADPNSPVYSGGVLETRREYVDDQFPASTRDPMVYQSDILITDITLAGVINHLV 486
Qy     485  VSTGTGDADYVVKLIDVYPNDAAASYGKTMAGYQMMVRGEIMAGKYRNGFDKAQALTPGM 544
Db     487  VSTGTGDADYVVKLIDVYPENTPKNNKLMAGYQNLIRAEIMRGKYRNSFSNPEAMVFNK 546
Qy     545  VEKYNFEMPDVAHTFKGHRIMVQVNSWFFPLAERNPQVFLAPYTATKADFKATQRIYH 604
Db     547  ETNVTYTPDVGHTFKGHRIMIQQVNSWFFPLADRNPOQFMNVYEATSKDYLKQYRIYH 606
Qy     605  DVNNATYIEFSLK 618
Db     607  ----TSYIEIPVLK 616
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## RESULT 8

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US-10-849-814-6
; Sequence 6, Application US/10849814
; Publication No. US20040219631A1
; GENERAL INFORMATION:
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: SUZUKI, SONOKO
; APPLICANT: HARA, SEIICHI
; APPLICANT: ABE, ISAO
; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN TRIP
; FILE REFERENCE: 252308US00CNT
; CURRENT APPLICATION NUMBER: US/10/849,814
; CURRENT FILING DATE: 2004-05-21
; PRIOR APPLICATION NUMBER: PCT/JPO3/09466
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: JP 2002-218958
; PRIOR FILING DATE: 2002-07-26
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 616
; TYPE: PRT
; ORGANISM: Empedobacter brevis
US-10-849-814-6
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Query Match      66.2%; Score 2198.5; DB 5; Length 616;
Best Local Similarity 64.3%; Pred. No. 3.3e-169;
Matches 395; Conservative 85; Mismatches 129; Indels 5; Gaps 2;
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Qy      5  ISCLTLLALSASQLHAQTAADSAYVRDHYEKTETVAIPMRDGHKGLFTAIYSPKDKSKYQPV 64
Db      8  VTLLTLLGSGTVGFAQDAKADSAAYVRDNYEKIEQVIMRDGKGLFTAIYQPKDKTKQYPV 67
Qy     65  LLNRPYTVSPYQONEYKKSGLNFPQMMREGYIFVYQDVRGKWMSEGDPEDIRPTTYSKD 124
Db     68  LLNRPYTVAPYGVNEYKKSGLNFPTEMREGYIFVYQDVRGKWMSEGEFEDVRPINPSKS 127
Qy     125  KKAIDESTDYYDALBWLQNLKNYNGKAGLYGISYPGFYSTVGLVKTHPSLKAQSPQAPV 184
Db     128  KKAIDESTDTFTLEWLAKNLKNYTKAGIYGISYPGFYSTVGLVNSHPSLKAQSPQAPV 187
Qy     185  TDWYLGDDPHNGVLFLODAFTPMSTFGVPRPKPTTPQFKGKIQIKKADKKNFABAGT 244
Db     188  TNWFLGDDPHNGVLFNDSPFMTFFGVKRPQPTTPDKGPKRFYPIKONTYRFA-SGS 246
Qy     245  ARELKEKYFGDSVQFQWDLFKHPDYDDFWKSRVITNSLOEVKPAVMVVGPFDAEDAYGT 304
Db     247  VKELKDKYLQDNIKFYNDLFAHPDYDQFQDRNVLPHTNVQPAVMVVGPFDAEDVYGA 306
Qy     305  FKTYQSIEDKSKNNNSILVAGPWYHGGWVRABGNVLDIQFEKKTSTITYQEQFQPFYKY 364
Db     307  FETYKAIEKQNPKATNIMVAGFWHGGWVRSGSTFGDMQFASNTSEHYQOEIELPFYNY 366
Qy     365  YLKDEGNFAPSEANIFVSGSNWKGHEQWPKNVETKKLYFQPOGKLGFDKQVOTDSWDE 424
Db     367  YLKDKGNFKPTEATFITGSGNEKQFQDAMPKKNVTQKIYLOQNGKIAFNKNTNTTTFDE 426
Qy     425  YVTDNPKVPVPHOGVIONRTREYVDDQFPAASRDPMVYQTEPLTDLTIYVPIKKNFLK 484
Db     427  YVADPNSPVYSGGVLETRREYVDDQFPASTRDPMVYQSDILITDITLAGVINHLV 486
Qy     485  VSTGTGDADYVVKLIDVYPNDAAASYGKTMAGYQMMVRGEIMAGKYRNGFDKAQALTPGM 544
Db     487  VSTGTGDADYVVKLIDVYPENTPKNNKLMAGYQNLIRAEIMRGKYRNSFSNPEAMVFNK 546
Qy     545  VEKYNFEMPDVAHTFKGHRIMVQVNSWFFPLAERNPQVFLAPYTATKADFKATQRIYH 604
Db     547  ETNVTYTPDVGHTFKGHRIMIQQVNSWFFPLADRNPOQFMNVYEATSKDYLKQYRIYH 606
Qy     605  DVNNATYIEFSLK 618
Db     607  ----TSYIEIPVLK 616
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## RESULT 9

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US-10-855-533-6
; Sequence 6, Application US/10855533
; Publication No. US20050019864A1
; GENERAL INFORMATION:
; APPLICANT: HARA, SEIICHI
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: ABE, ISAO
; APPLICANT: TONOUCHI, NAOTO
; APPLICANT: JOJIMA, YASUKO
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES
; FILE REFERENCE: 253783US0
; CURRENT APPLICATION NUMBER: US/10/855,533
; CURRENT FILING DATE: 2004-05-28
; PRIOR APPLICATION NUMBER: PCT/JPO3/09468
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: JP 2002-218957
; PRIOR FILING DATE: 2002-07-26
; PRIOR APPLICATION NUMBER: JP 2003-16765
; PRIOR FILING DATE: 2003-01-24
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 616
; TYPE: PRT
; ORGANISM: Empedobacter brevis
US-10-855-533-6
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Query Match 66.2%; Score 2198.5; DB 5; Length 616;  
Best Local Similarity 64.3%; Pred. No. 3.3e-169;  
Matches 395; Conservative 85; Mismatches 129; Indels 5; Gaps 2;

Qy 5 ISCLTLLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDCKLFTAIYSPKDKSKYVPV 64  
Db 8 VTLLTLLGSGTGFQAQDAKADSAYVRDNYEKIEQVIMRDGTGKLFATYIQPKDKTKQYVP 67

Qy 65 LLNRPTVTSVPGONEYKKSIGNFPQMMREGVIFVYQDVRGKMWSEGFEDIRPTTYSKD 124  
Db 68 LLNRPTVTSVPGONEYKKSIGNFPQMMREGVIFVYQDVRGKMWSEGFEDIRPTTYSKD 127

Qy 125 KKAIDESTDYYDALEWLQKNIKNYNGKAGLYGISYGFYSTVGLVKTSPSLKAVSQAPV 184  
Db 128 KKAIDESTDYYDALEWLQKNIKNYNGKAGLYGISYGFYSTVGLVKTSPSLKAVSQAPV 187

Qy 185 TDWYIGDDFHNGVLFLODAFTFMSFTGVPKPKITPDQFKGIQIKADKYNFFAEAGT 244  
Db 188 TNWFLGDDFHNGVLFLODAFTFMSFTGVPKPKITPDQFKGIQIKADKYNFFAEAGT 246

Qy 245 ARELKEKYFGDSVQFWMNDLFKHPDYDDFWKSRVITNSLOEVKPAVMVVGGFDAEDAYGT 304  
Db 247 VKELKDKYLQDNIKFYNDLFAHPDYDQFWDNRNVLPHLTNPQPAVMTVGGFFDAEDVYGA 306

Qy 305 FKTYQSIEDSKKONSILVAGPWHGHWRAEGNYLGDIOPEKKTSTITYQGFQPPFKY 364  
Db 307 FETYKALEKQNPKATNINVAGPWHGHWRAEGNYLGDIOPEKKTSTITYQGFQPPFKY 366

Qy 365 YLKDGNFAPSEANIFVSGSNEWKHFQWPKNVEKLYFQPOGKLGDFDKVQRTDSWDE 424  
Db 367 YLKDGNFAPSEANIFVSGSNEWKHFQWPKNVEKLYFQPOGKLGDFDKVQRTDSWDE 426

Qy 425 YVTDPNKVPFHQGGVQNRTRYMVDQDFAASRPDMVYQTEPLDITIVGPIKKNFLK 484  
Db 427 YVADPNSEVPVSGGVLETRSRREYVMDQDFAASRPDMVYQTEPLDITIVGPIKKNFLK 486

Qy 485 VSSGTGDADYVVKLIDVYPNDAAASYQKTMAGYQWVRGEIMAGKYNRNGFKAQALTPGM 544  
Db 487 VSSGTGDADYVVKLIDVYPNDAAASYQKTMAGYQWVRGEIMAGKYNRNGFKAQALTPGM 546

Qy 545 VEKYNFEMPVVAHTFKKGRHIMVQVNSWFPPLAERNPQVFLAPYATKADPRKATORIFH 604  
Db 547 ETNVTYTMPDVGHFTFKKGRHIMVQVNSWFPPLAERNPQVFLAPYATKADPRKATORIFH 606

Qy 605 DVNNATYIEFSVLK 618  
Db 607 ----TSYIEIPVLK 616

## RESULT 10

US-10-859-405-6  
; Sequence 6, Application US/10859405  
; Publication No. US20050032154A1  
; GENERAL INFORMATION:  
; APPLICANT: YOKOZAKI, KENZO  
; APPLICANT: SUZUKI, SONOKO  
; APPLICANT: HARA, SEIICHI  
; APPLICANT: ABE, ISAO  
; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN  
; FILE REFERENCE: 254070U0  
; CURRENT APPLICATION NUMBER: US/10/859,405  
; CURRENT FILING DATE: 2004-06-03  
; PRIOR APPLICATION NUMBER: US 60/491,547  
; PRIOR FILING DATE: 2003-08-01  
; PRIOR APPLICATION NUMBER: JP 2002-218958  
; PRIOR FILING DATE: 2002-07-26  
; NUMBER OF SEQ ID NOS: 21  
; SOFTWARE: PatentIn version 3.3  
; SEQ ID NO 6  
; LENGTH: 616  
; TYPE: PRT  
; ORGANISM: Empedobacter brevis

US-10-859-405-6

Query Match 66.2%; Score 2198.5; DB 5; Length 616;  
Best Local Similarity 64.3%; Pred. No. 3.3e-169;  
Matches 395; Conservative 85; Mismatches 129; Indels 5; Gaps 2;

Qy 5 ISCLTLLSASQLHAQTAADSAYVRDHYEKTEVAIPMRDCKLFTAIYSPKDKSKYVPV 64  
Db 8 VTLLTLLGSGTGFQAQDAKADSAYVRDNYEKIEQVIMRDGTGKLFATYIQPKDKTKQYVP 67

Qy 65 LLNRPTVTSVPGONEYKKSIGNFPQMMREGVIFVYQDVRGKMWSEGFEDIRPTTYSKD 124  
Db 68 LLNRPTVTSVPGONEYKKSIGNFPQMMREGVIFVYQDVRGKMWSEGFEDIRPTTYSKD 127

Qy 125 KKAIDESTDYYDALEWLQKNIKNYNGKAGLYGISYGFYSTVGLVKTSPSLKAVSQAPV 184  
Db 128 KKAIDESTDYYDALEWLQKNIKNYNGKAGLYGISYGFYSTVGLVKTSPSLKAVSQAPV 187

Qy 185 TDWYIGDDFHNGVLFLODAFTFMSFTGVPKPKITPDQFKGIQIKADKYNFFAEAGT 244  
Db 188 TNWFLGDDFHNGVLFLODAFTFMSFTGVPKPKITPDQFKGIQIKADKYNFFAEAGT 246

Qy 245 ARELKEKYFGDSVQFWMNDLFKHPDYDDFWKSRVITNSLOEVKPAVMVVGGFDAEDAYGT 304  
Db 247 VKELKDKYLQDNIKFYNDLFAHPDYDQFWDNRNVLPHLTNPQPAVMTVGGFFDAEDVYGA 306

Qy 305 FKTYQSIEDSKKONSILVAGPWHGHWRAEGNYLGDIOPEKKTSTITYQGFQPPFKY 364  
Db 307 FETYKALEKQNPKATNINVAGPWHGHWRAEGNYLGDIOPEKKTSTITYQGFQPPFKY 366

Qy 365 YLKDGNFAPSEANIFVSGSNEWKHFQWPKNVEKLYFQPOGKLGDFDKVQRTDSWDE 424  
Db 367 YLKDGNFAPSEANIFVSGSNEWKHFQWPKNVEKLYFQPOGKLGDFDKVQRTDSWDE 426

Qy 425 YVTDPNKVPFHQGGVQNRTRYMVDQDFAASRPDMVYQTEPLDITIVGPIKKNFLK 484  
Db 427 YVADPNSEVPVSGGVLETRSRREYVMDQDFAASRPDMVYQTEPLDITIVGPIKKNFLK 486

Qy 485 VSSGTGDADYVVKLIDVYPNDAAASYQKTMAGYQWVRGEIMAGKYNRNGFKAQALTPGM 544  
Db 487 VSSGTGDADYVVKLIDVYPNDAAASYQKTMAGYQWVRGEIMAGKYNRNGFKAQALTPGM 546

Qy 545 VEKYNFEMPVVAHTFKKGRHIMVQVNSWFPPLAERNPQVFLAPYATKADPRKATORIFH 604  
Db 547 ETNVTYTMPDVGHFTFKKGRHIMVQVNSWFPPLAERNPQVFLAPYATKADPRKATORIFH 606

Qy 605 DVNNATYIEFSVLK 618  
Db 607 ----TSYIEIPVLK 616

## RESULT 11

US-10-876-673-6  
; Sequence 6, Application US/10876673  
; Publication No. US20050124035A1  
; GENERAL INFORMATION:  
; APPLICANT: YOKOZAKI, KENZO  
; APPLICANT: OHNO, AYAKO  
; APPLICANT: HARA, SEIICHI  
; APPLICANT: ABE, ISAO  
; TITLE OF INVENTION: METHOD FOR PRODUCING ALPHA-L-ASPARTYL-L-PHENYLALANINE-BETA-ESTER  
; TITLE OF INVENTION: AND METHOD FOR PRODUCING  
; FILE REFERENCE: 254836USOPCT  
; CURRENT APPLICATION NUMBER: US/10/876,673  
; CURRENT FILING DATE: 2004-06-28  
; PRIOR APPLICATION NUMBER: PCT/JP2004/000620  
; PRIOR FILING DATE: 2004-01-23  
; PRIOR APPLICATION NUMBER: JP 2003-016764  
; PRIOR FILING DATE: 2003-01-24  
; PRIOR APPLICATION NUMBER: JP 2003-201819  
; PRIOR FILING DATE: 2003-07-25  
; PRIOR APPLICATION NUMBER: US 60/491,546



; PRIOR FILING DATE: 2004-03-22  
; NUMBER OF SEQ ID NOS: 28  
; SOFTWARE: PatentIn version 3.3  
; SEQ ID NO 12  
; LENGTH: 616  
; TYPE: PRT  
; ORGANISM: Empedobacter brevis  
US-11-085-576-12

Query Match 66.2%; Score 2198.5; DB 6; Length 616;  
Best Local Similarity 64.3%; Pred. No. 3.3e-169;  
Matches 395; Conservative 85; Mismatches 129; Indels 5; Gaps 2;  
Qy 5 ISCLTALLSASQLHAQTAADSAAYVRDHYEKTEVAIPMRDGGKGLFTAIYSPKDKSKYVP 64  
Db 8 VILITLLGSGTVGFAQDAKADSAAYVRDNYEKIEQVPMRDGKGLFTAIYSPKDKTKQYVP 67  
Qy 65 LLNRTPTVSPYQONEYYKSLGNFPQMMREGYIFVYQDVRGKMSSEGDFEDIRPTTYSKD 124  
Db 68 LLNRTPTVAPYGVNEYKSLGNFTEPMREGFIFVYQDVRGKMSSEGDFEDVRPINFSSK 127  
Qy 125 KKAIDESTDTDALEWLOKNIKNYNGKAGLYGISYPGYSYTVGLVTHPSLKAVSPQAPV 184  
Db 128 KKAIDESTDTDTLEWLAKNKNYTKKAGIYGISYPGYSYTVGLVTHPSLNSHPTLKAVSPQAPV 187  
Qy 185 TDWVIGDDFHNGVLFLODAFTFSTFGVPRPKPITPDQFKGKIQKEADKYNFPAAGT 244  
Db 188 TNWFLGDDFHNGVLFNLDSFMTFFGVKRPQPIITDKGPKRFEPYIKDNYRIFYA-SGS 246  
Qy 245 ARELKEKYFGDSQVQFNDLFXHPDYDDDFWKSRLVITNSLQEVKPAVMVVGFFDAEDAYGT 304  
Db 247 VKELDKYLDQNIKFYNDLFAHPDYDQFWQDRNVLPHLTNNQPAVMTVGGFFDAEDVYGA 306  
Qy 305 PКТYQSTEDSKKNNLSILVAGPWHYGGWVRAGNYLGDIOPEKKTSTIYQBPQPPFKY 364  
Db 307 PETYKAIEKQPKATNIMVAGFWFHGGWVRNGSTFGDMQFASNTSEHYQOEIELPFPNY 366  
Qy 365 YLKDEGNFAPSEANIFVSGSNWEHFEQWPKNVETKLYEPOQKGLGDFKVQRTSDWE 424  
Db 367 YLKDKGNFPTEATIFITSGNEWQFQDAMPKPNVTQKIYQQNGKIAFNKNTNTTTFDE 426  
Qy 425 YVTDPNKFPVHQGGVQNRTRYVDDQFPAASRPDMVYQTEPLTDITTVGPIKNFLK 484  
Db 427 YVADPNPVPVSGGVLETRSEYVDDQFPASTRPDVVMYQSDILTDITLAGPVINHLV 486  
Qy 485 VSGTGTADYVVKLIDVYDNDAAASYQKTMAGYQMMVRGEIMAGKYNRNGPDKAALTPGM 544  
Db 487 VSTGTADYVVKLIDVYPENTPKFNKLMAGYQNLIRAEIMRGKYRNSFNPAMVPNK 546  
Qy 545 VEKYNFEMPVDAHTFKKGHRIMVOVQNSWFFPLAERNQVFLAPYTATKADFRKATORIFH 604  
Db 547 ETNVTYTMPDVGHFTFKGHRIMIYQVNSWFFPLADRNPOQFMNVYEATSKDYLKQTORIYH 606  
Qy 605 DVNNATYIEFVLK 618  
Db 607 ----TSYIEIPVLK 616

RESULT 14  
US-11-085-576-3  
; Sequence 3, Application US/11085576  
; Publication No. US20050227325A1  
; GENERAL INFORMATION:  
; APPLICANT: MIHARA, YASUHIRO  
; APPLICANT: HIRAO, YOSHINORI  
; TITLE OF INVENTION: RECOMBINANT POLYNUCLEOTIDE  
; FILE REFERENCE: 268258U0  
; CURRENT APPLICATION NUMBER: US/11/085,576  
; CURRENT FILING DATE: 2005-03-22  
; PRIOR APPLICATION NUMBER: JP 2004-083481  
; PRIOR FILING DATE: 2004-03-22  
; NUMBER OF SEQ ID NOS: 28  
; SOFTWARE: PatentIn version 3.3

; SEQ ID NO 3  
; LENGTH: 594  
; TYPE: PRT  
; ORGANISM: Empedobacter brevis  
US-11-085-576-3

Query Match 65.9%; Score 2187.5; DB 6; Length 594;  
Best Local Similarity 65.5%; Pred. No. 2.4e-168;  
Matches 390; Conservative 83; Mismatches 117; Indels 5; Gaps 2;  
Qy 24 ADSAYVRDHYEKTEVAIPMRDGGKGLFTAIYSPDKSKYKYPVLLNRTPTVSPYQONEYYK 83  
Db 5 ADSAYVRDNYEKISQVPMRDGKGLFTAIYQPKDKTKQYVLLNRTPTVTVAPYGVNEYK 64  
Qy 84 SLGNFPQMMREGYIFVYQDVRGKMSSEGDFEDIRPTTYSKDKKAIIDESTDTYDALEWLOK 143  
Db 65 SLGNFPTEMRGFIYVYQDVRGKMSSEGDFEDVRPINFSSKKAIDESTDTDTLEWLAK 124  
Qy 144 NLKNYNGKAGLYGISYPGYSYTVGLVTHPSLKAVSPQAPVTDWVIGDDFHNGVLFLOD 203  
Db 125 NLKNYTKKAGIYGISYFGYSTMSLVNSHPTLKAVSPQAPVTNNWFLGDDFHNGVFLND 184  
Qy 204 APTFMSTFGVPRPKPITPDQFKGKIQKEADKYNFPAAGTARELKEKYFGDSQVQFNDL 263  
Db 185 SFSFMTFFGVKRPQPIITDKGPKRFEPYIKDNYRIFYA-SGSVKELDKYLDQNIKFYNDL 243  
Qy 264 FXHPDYDDFWKSRLVITNSLQEVKPAVMVVGFFDAEDAYGTFTKYQSTEDSKKNNLSILV 323  
Db 244 FAHPDYDQFWQDRNVLPHLTNNQPAVMTVGGFFDAEDVYGAFTYKAIEKQPKATNIMV 303  
Qy 324 AGPWHYGGWVRAGNYLGDIOPEKKTSTIYQEOQEPFFKYLLKDEGNFAPSEANIFVSG 383  
Db 304 AGPWHYGGWVRNGSTFGDMQFASNTSEHYQOEIELPFFNYLLKDKGNFRTEATIFITG 363  
Qy 384 SNEWKHFEQWPKNVETKLYEPOQKGLGDFKVQRTSDWEYVDDPNKPVPHQGGVQNR 443  
Db 364 SNEWKQFQDAMPKPNVTQKIYQQNGKIAFNKNTNTTTFDEYVADPNPVPVSGVLETR 423  
Qy 444 TREVMDDQFPAASRPDMVYQTEPLTDITTVGPIKNFLKVSSTGTADYVVKLIDVYP 503  
Db 424 SRETMVDDQFPASTRPDVVMYQSDILTDITLAGPVINHLVSTGTADYVVKLIDVYP 483  
Qy 504 NDAASYQKTMAGYQMMVRGEIMAGKYNRNGPDKAALTPGMVEKYNFEMPVDAHTFKKGGH 563  
Db 484 ENTPKFNKLMAGYQNLIRAEIMRGKYRNSFNPAMVPNKETNVTYTMPDVGHFTFKKGGH 543  
Qy 564 RIMVQVQNSWFFPLAERNQVFLAPYTATKADFRKATORIFHDVNNATYIEFVLK 618  
Db 544 RIMVQVQNSWFFPLADRNPOQFMNVYEATSKDYLKQTORIYH----TSYIEIPVLK 594

RESULT 15  
US-10-763-179-18  
; Sequence 18, Application US/10763179  
; Publication No. US20040204577A1  
; GENERAL INFORMATION:  
; APPLICANT: HARA, SEIICHI  
; APPLICANT: YOKOZEKI, KENZO  
; APPLICANT: ABE, ISAO  
; APPLICANT: TONOUCHI, NAOTO  
; APPLICANT: JOJIMA, YASUKO  
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES  
; FILE REFERENCE: 247848U0  
; CURRENT APPLICATION NUMBER: US/10/763,179  
; CURRENT FILING DATE: 2004-01-26  
; PRIOR APPLICATION NUMBER: JP 2003-16765  
; PRIOR FILING DATE: 2003-01-24  
; PRIOR APPLICATION NUMBER: US 60/491,612  
; PRIOR FILING DATE: 2003-08-01  
; NUMBER OF SEQ ID NOS: 27  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 18  
; LENGTH: 625



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; TYPE: PRT
; ORGANISM: Pedobacter heparinus
US-10-763-179-18

Query Match          62.7%; Score 2081; DB 4; Length 625;
Best Local Similarity 61.8%; Pred. No. 1,1e-159;
Matches 383; Conservative 81; Mismatches 150; Indels 6; Gaps 3;

Qy 4 TISCLTALLASQHAQTADSAVVRDHYEKEVAIPMRDGKLLFTAIYSPKDKSKYP 63
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 6 SPSFIFLFIPTLSLSAQ-QSDSAVIRQNYTKIERLIPMRDGKLLFTAIYIPKDKSKYP 64
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 64 VLLNRPVTVSPYGVNEVKKSLGNFPMQMRGCIYVYQDVRGKWMSEGDFFEDIRTTYSK 123
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 65 FMLNRPVTVSPYGENNTKSLGPSPLFIKEGFIYVYQDVRGKWMSEGFEDVRPQIASK 124
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 124 DKKA-IDESTDTYDALEKLNKNYNGKAGLYGISYFGFYSTVGLVKTHTPSLKAVSPOA 182
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 125 KRKTDIDESSDTYDIDMLIRNI PGNNRKTGIYGISYFGFYATAALPDHPSLKAVSPOA 184
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 183 PVTDWYIGDDFHNGVLFLODAFTFMSTFGVPRPKPIPTDQPFKGKIQIKEADKYNFFABA 242
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 185 PVTDFWIGDDFHNGTFLADIFSPVYTFGVPRPQIPITPKRPKPPDFPVKDNRYFFLEL 244
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 243 GTARELKEKYPGDSVQFNDLFPKDPYDDFWKSRVITNSLQEVKPAVMVVGFFDAEDAY 302
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 245 GPLKNITKKYXGDTIRFWNDINAHTNYDAFWKARNITPHLIGVKPAVLVVGFFDAEDLY 304
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 303 GTEKTYQSIEDKSKKNNSILVAGPMWYHGWVRAEGNVLGDIOFEKKTSTITYOEQEQPFF 362
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 305 GTLKYQAIKQNPSSKNLVNPGWYHGWVRAEGNVLGDIOFEKKTSTITYOEQEQPFF 364
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 363 KYLLKDEGNFAPSEANI FVSGSNWKHFQWPPKXVETKCLYFQPGKLGFDKQVQRTDSW 422
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 365 MQLKEAPDAKIAEATIFITGSNEWKFSWPPQDTEERTLYLQPNGLSFEKVQRTDSW 424
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 423 DEYVTDPNKVPVHQGVIONRTREYVWDDQRPASRPDMVYQTEPLTEDLTI VGPINKF 482
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 425 DEYVSDPNSPVYQDGIQTSRTREYMIIDQRPASRRPDVRFQTEPLSSDLTLTGPIVLAK 484
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 483 LKVSSTGTDADYVVKLIDVYND---AASYGKTMAGYQMMVRGEINAGKYRNGFDKAO 538
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 485 LVVSTGTDADYVVKLIDVYEDTNPVNPKNLIMGYQMLVRGEINMRGKIRNSFEKPE 544
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 539 ALTPGMVEKVNPEMPDVAHTFKGHRIMVQVQNSWFFPLAERNPQVFLAPYTATKADFRKA 598
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 545 PPVPGTITKVNYALPDVAHTFKGHRIMI QVNSWFFPLADRNPPQFMIDYQAEPCDFRKA 604
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 599 TORIFHDVNNATYIEFSVLK 618
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 605 THRIFHDVNNASAITVNLK 624
Db : : : : : : : : : : : : : : : : : : : : : : : : : : : :
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QY 181 CCCATGCGAGATGGGAAATAATTTACTGCGATCTACAGTCCAAAAGACAAATCCAAAG 240  
Db 181 CCCATGCGAGATGGGAAATAATTTACTGCGATCTACAGTCCAAAAGACAAATCCAAAG 240  
QY 241 AAATATCCAGTTTTCCTCAATAGAACGCCCTACACGGTTTCACCTTATGGGCGAGAACGAA 300  
Db 241 AAATATCCAGTTTTCCTCAATAGAACGCCCTACACGGTTTCACCTTATGGGCGAGAACGAA 300  
QY 301 TATAAAAAAGCTTCGGGAAACTTTCCCAAATGATGCGTGAAGGCTATATTTTCGTTTAC 360  
Db 301 TATAAAAAAGCTTCGGGAAACTTTCCCAAATGATGCGTGAAGGCTATATTTTCGTTTAC 360  
QY 361 CAGGATGTCGGTGGCAAGTGGATGAGCGAAGGTGATTTTGAAGATATACGTCGCAACACG 420  
Db 361 CAGGATGTCGGTGGCAAGTGGATGAGCGAAGGTGATTTTGAAGATATACGTCGCAACACG 420  
QY 421 TACAGCAAGATATAAAAAAGCAATCGATGAAGTACGGATACCTATGATGCGCTTGAATGG 480  
Db 421 TACAGCAAGATATAAAAAAGCAATCGATGAAGTACGGATACCTATGATGCGCTTGAATGG 480  
QY 481 TTACAGAAAAATCTCAAAAACTATATAATGSCAAAGCCGGCTCTATGGGATTTCCCTATCCA 540  
Db 481 TTACAGAAAAATCTCAAAAACTATATAATGSCAAAGCCGGCTCTATGGGATTTCCCTATCCA 540  
QY 541 GCGTTCTATTTACCGTCGGATTGCTCAAAAACACACACCGAGCTTCAAGGCGAGTCTCCCA 600  
Db 541 GCGTTCTATTTACCGTCGGATTGCTCAAAAACACACACCGAGCTTCAAGGCGAGTCTCCCA 600  
QY 601 CAGGCTCCGTTAAACAGATGCTGATATATCGGCGACGACTTCCACCAATAATGGCGTATGTTT 660  
Db 601 CAGGCTCCGTTAAACAGATGCTGATATATCGGCGACGACTTCCACCAATAATGGCGTATGTTT 660  
QY 661 CTTACAGATGCAATTTACATCTCATGTCACCTTTGCTGTCCTCGTCCCAAAACCAATACA 720  
Db 661 CTTACAGATGCAATTTACATCTCATGTCACCTTTGCTGTCCTCGTCCCAAAACCAATACA 720  
QY 721 CCGGATCAATTTAAGGCGAAATTCAGATCAAAAGACCGATATAATATAAATTTTTCGA 780  
Db 721 CCGGATCAATTTAAGGCGAAATTCAGATCAAAAGACCGATATAATATAAATTTTTCGA 780  
QY 781 GAAGCAGGAACAGCGCGGAACTCAAGAAAGTATTTTGTGATCCGTCACAAATTTTGG 840  
Db 781 GAAGCAGGAACAGCGCGGAACTCAAGAAAGTATTTTGTGATCCGTCACAAATTTTGG 840  
QY 841 AATGACCTTTTAAGCATCCGACTATGATGATTTTTCGAAATCCGCTGATCACGAAT 900  
Db 841 AATGACCTTTTAAGCATCCGACTATGATGATTTTTCGAAATCCGCTGATCACGAAT 900  
QY 901 TCTTTACAGGAGTAAAAACCCAGCTGTGATGTTGTTGTTCTTTGAACGCGAAGAT 960  
Db 901 TCTTTACAGGAGTAAAAACCCAGCTGTGATGTTGTTGTTCTTTGAACGCGAAGAT 960  
QY 961 GCTTATGAACATTTAAGACCTTACCAATCGATGAGGATATAAGCAAAAAAACAACCTCG 1020  
Db 961 GCTTATGAACATTTAAGACCTTACCAATCGATGAGGATATAAGCAAAAAAACAACCTCG 1020  
QY 1021 ATTTTAGTCGGGACCTTGTATCATGCGCGTTGGTTTCTGTCGAGAGGAACTATTTA 1080  
Db 1021 ATTTTAGTCGGGACCTTGTATCATGCGCGTTGGTTTCTGTCGAGAGGAACTATTTA 1080  
QY 1081 GGTGATATCCAAATTTGAGAAAAAACCACTATCTATCAGGAACAATTTGAACAAACA 1140  
Db 1081 GGTGATATCCAAATTTGAGAAAAAACCACTATCTATCAGGAACAATTTGAACAAACA 1140  
QY 1141 TTTTTCAAATATATCTTAAAGATGAAGAAACTTCGCGCCCTTCGGAAGCTAAACATTTT 1200  
Db 1141 TTTTTCAAATATATCTTAAAGATGAAGAAACTTCGCGCCCTTCGGAAGCTAAACATTTT 1200  
QY 1201 GTTTCAGGAGCAACGAATGGAAACAATTCGAACAGTGGCCCAAAAAAATGTAGAGACA 1260  
Db 1201 GTTTCAGGAGCAACGAATGGAAACAATTCGAACAGTGGCCCAAAAAAATGTAGAGACA 1260  
QY 1261 AAAAAACTATATCTTCAACCTCAGGGGAAACTTGGATTTTGACAAAGTTTCAAGCTACAGAT 1320

Db 1261 AAAAAACTATATCTTCAACCTCAGGGGAAACTTGGATTTTGACAAAGTTTCAAGCTACAGAT 1320  
QY 1321 TCCTGGGATGAATATGTAACAGACCCCTAATAAACCCTGTTCCGCTCAAGGTGGGGTAATT 1380  
Db 1321 TCCTGGGATGAATATGTAACAGACCCCTAATAAACCCTGTTCCGCTCAAGGTGGGGTAATT 1380  
QY 1381 CAAAAACCGAACACCGGAGTATATGATAGATGATCAACCGTTTCGCGGCTTAGTCGCCCTGAT 1440  
Db 1381 CAAAAACCGAACACCGGAGTATATGATAGATGATCAACCGTTTCGCGGCTTAGTCGCCCTGAT 1440  
QY 1441 GTCATGTTTTATCAAAACGGAACCGTTGACGAGGACCTGACGATAGTAGGCCCAATCAAA 1500  
Db 1441 GTCATGTTTTATCAAAACGGAACCGTTGACGAGGACCTGACGATAGTAGGCCCAATCAAA 1500  
QY 1501 AACTTTCTCAAGTTTCTTCAACAGGAACACACCGGACCTATGTTGTCAAACTGATTGAC 1560  
Db 1501 AACTTTCTCAAGTTTCTTCAACAGGAACACACCGGACCTATGTTGTCAAACTGATTGAC 1560  
QY 1561 GTTTTATCCGAATGATGACGAAAGTTTATCAAGGAAAAACAATGGCTGGATATCAAAATGATG 1620  
Db 1561 GTTTTATCCGAATGATGACGAAAGTTTATCAAGGAAAAACAATGGCTGGATATCAAAATGATG 1620  
QY 1621 GTACGTGCTGAGATCATGGCGGGGAAATACCGAAATGTTTTCGATAAAGCCAGGCCCTTG 1680  
Db 1621 GTACGTGCTGAGATCATGGCGGGGAAATACCGAAATGTTTTCGATAAAGCCAGGCCCTTG 1680  
QY 1681 ACTCAGGATGCTGCGAAAAGGTGAAATTTTGAAATGCCAGACGTTGCCATACCTTCAAA 1740  
Db 1681 ACTCAGGATGCTGCGAAAAGGTGAAATTTTGAAATGCCAGACGTTGCCATACCTTCAAA 1740  
QY 1741 AAAGGACATCCGATTTATGTTTCAGTACAAACTCATGTTTTCGCTCGCAGAACGAAAT 1800  
Db 1741 AAAGGACATCCGATTTATGTTTCAGTACAAACTCATGTTTTCGCTCGCAGAACGAAAT 1800  
QY 1801 CCACAGGTGTTTTTAGCACCTTTATACAGCTACCAAGCTGATTTTCGCAAAAGCTACCCAA 1860  
Db 1801 CCACAGGTGTTTTTAGCACCTTTATACAGCTACCAAGCTGATTTTCGCAAAAGCTACCCAA 1860  
QY 1861 CGTATTTTTCAGATGGAACAATGCCACATACATCGAATTTTCTGTCTCTCAAGATTAG 1920  
Db 1861 CGTATTTTTCAGATGGAACAATGCCACATACATCGAATTTTCTGTCTCTCAAGATTAG 1920  
QY 1921 CAGGTAAATTCGAAA 1935  
Db 1921 CAGGTAAATTCGAAA 1935

RESULT 2

US-10-849-814-11  
; Sequence 11, Application US/10849814  
; Publication No. US20040219631A1  
; GENERAL INFORMATION:  
; APPLICANT: YOKOZEKI, KENZO  
; APPLICANT: SUZUKI, SONOKO  
; APPLICANT: HARA, SEIICHI  
; APPLICANT: ABE, ISAO  
; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN TRIPE  
; FILE REFERENCE: 252308USOCONT  
; CURRENT APPLICATION NUMBER: US/10/849,814  
; CURRENT FILING DATE: 2004-05-21  
; PRIOR APPLICATION NUMBER: PCT/JP03/09466  
; PRIOR FILING DATE: 2003-07-25  
; PRIOR APPLICATION NUMBER: JP 2002-218958  
; PRIOR FILING DATE: 2002-07-26  
; NUMBER OF SEQ ID NOS: 14  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 11  
; LENGTH: 1935  
; TYPE: DNA  
; ORGANISM: Sphingobacterium sp.  
; FEATURE:  
; NAME/KEY: CDS

; LOCATION: (61)..(1917)  
 ; OTHER INFORMATION:  
 US-10-849-814-11

Query Match	100.0%;	Score 1935;	DB 8;	Length 1935;
Best Local Similarity	100.0%;	Pred. No. 0;		
Matches 1935;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;
Qy	1	GAACACCAAGTGTAAAAATTATAAATTTACACCAAGAAATGTACTGGAACAAATAAATATCTCGA	60	
Db	1	GAACACCAAGTGTAAAAATTATAAATTTACACCAAGAAATGTACTGGAACAAATAAATATCTCGA	60	
Qy	61	ATGAAAAATACAAATTCGTGCCTTAACCTTTAGCGCTTTTAAAGCGCAAGCGAGTTACATGCT	120	
Db	61	ATGAAAAATACAAATTCGTGCCTTAACCTTTAGCGCTTTTAAAGCGCAAGCGAGTTACATGCT	120	
Qy	121	CAAAACAGCTCGCGACTCGGCTTATGTTAGAGATCAATTATGAAAAAGACCGGAAGTAGCAATT	180	
Db	121	CAAAACAGCTCGGACTCGGCTTATGTTAGAGATCAATTATGAAAAAGACCGGAAGTAGCAATT	180	
Qy	181	CCCATGCGAGATGGGAAAAAATTTATTTACTGCGATCTACAGTCCAAAGACAAATCCAAG	240	
Db	181	CCCATGCGAGATGGGAAAAAATTTATTTACTTGCATCTACAGTCCAAAGACAAATCCAAG	240	
Qy	241	AAATATCCAGTTTGTCTCAATAGAACGCCCTACACGGTTTTCACCTTATGGCAGAACGAA	300	
Db	241	AAATATCCAGTTTGTCTCAATAGAACGCCCTACACGGTTTTCACCTTATGGCAGAACGAA	300	
Qy	301	TATAAAAAAGCTTGGGAAACTTTCCCCAAATGATGCTGAAGCTATATTTTTCGTTTAC	360	
Db	301	TATAAAAAAGCTTGGGAAACTTTCCCCAAATGATGCTGAAGCTATATTTTTCGTTTAC	360	
Qy	361	CAGGATGTCGTGGCAAGTGGATGAGCGAAAGGTGATTTTGAAGATATACGTCGACCAACG	420	
Db	361	CAGGATGTCGTGGCAAGTGGATGAGCGAAAGGTGATTTTGAAGATATACGTCGACCAACG	420	
Qy	421	TACAGCAAGATAAAAAGCAATCGATGAAGTAGCGATACCTATGATGCGCTTGATGG	480	
Db	421	TACAGCAAGATAAAAAGCAATCGATGAAGTAGCGATACCTATGATGCGCTTGATGG	480	
Qy	481	TTACAGAAAAATCTCAAAAACTATAATGGCAAGCCGGGCTCTATGGGATTTCCATATCCA	540	
Db	481	TTACAGAAAAATCTCAAAAACTATAATGGCAAGCCGGGCTCTATGGGATTTCCATATCCA	540	
Qy	541	GGCTTCTATTCTACCGTCGGATTTGGTCAAAACACACCCGAGCTTGAAGGCAAGTCTCCCA	600	
Db	541	GGCTTCTATTCTACCGTCGGATTTGGTCAAAACACACCCGAGCTTGAAGGCAAGTCTCCCA	600	
Qy	601	CAGGCTCCCGTAACAGACTGATATATCGGCGACGACTTCCACCAATATGCGGTATGTTT	660	
Db	601	CAGGCTCCCGTAACAGACTGATATATCGGCGACGACTTCCACCAATATGCGGTATGTTT	660	
Qy	661	CTTCAGGATGCATTTACATTCATGTCAACCTTTGGTGTCCCTCGTCCAAAACCCCATTA	720	
Db	661	CTTCAGGATGCATTTACATTCATGTCAACCTTTGGTGTCCCTCGTCCAAAACCCCATTA	720	
Qy	721	CCGGATCAATTTAAGGCAAAATTCAGATCAAGAGCCGATATAATATACTTTTTTTCGA	780	
Db	721	CCGGATCAATTTAAGGCAAAATTCAGATCAAGAGCCGATATAATATACTTTTTTTCGA	780	
Qy	781	GAAGCAGGAACAGCGGGAACTCAAAAGAAAAGTATTTTGGTGACTCCGTACAAATTTTG	840	
Db	781	GAAGCAGGAACAGCGGGAACTCAAAAGAAAAGTATTTTGGTGACTCCGTACAAATTTTG	840	
Qy	841	AATGAACCTGTTTAAGCATCCCGACTATGATGATTTTTTGGAAAATCGCGTGTGATCA	900	
Db	841	AATGAACCTGTTTAAGCATCCCGACTATGATGATTTTTTGGAAAATCGCGTGTGATCA	900	
Qy	901	TCCTTTACAGGAGTTAAACACGACTGTGATCGTGGTGTGCTTTCTTTGACGCGGAGAT	960	
Db	901	TCCTTTACAGGAGTTAAACACGACTGTGATCGTGGTGTGCTTTCTTTGACGCGGAGAT	960	
Qy	961	GCTTATGGAACTTTAAGACTTACCATCGATTCAGATATAAGCAAAAAAACAATCTCG	1020	

RESULT 3  
US-10-855-533-11  
; Sequence 11, Application US/10855533  
; Publication No. US2005019864A1  
; GENERAL INFORMATION:

; APPLICANT: HARA, SEIICHI  
; APPLICANT: YOKOZEKI, KENZO  
; APPLICANT: ABE, ISAO  
; APPLICANT: TONOUCHI, NAOTO  
; APPLICANT: JOJIMA, YASUOKO  
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES  
; FILE REFERENCE: 253783USO  
; CURRENT APPLICATION NUMBER: US/10/855,533  
; CURRENT FILING DATE: 2004-05-28  
; PRIOR APPLICATION NUMBER: PCR/JF03/09468  
; PRIOR FILING DATE: 2003-07-25  
; PRIOR APPLICATION NUMBER: JP 2002-218957  
; PRIOR FILING DATE: 2002-07-26  
; PRIOR APPLICATION NUMBER: JP 2003-16765  
; PRIOR FILING DATE: 2003-01-24  
; NUMBER OF SEQ ID NOS: 27  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 11

; TYPE: DNA  
; ORGANISM: Sphingobacterium sp.  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (61)..(1917)  
; OTHER INFORMATION:

US-10-855-533-11

Query Match 100.0%; Score 1935; DB 8; Length 1935;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 1935; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	GAACACAGTCTAAATTAATTAATTAACACCAAGAACTGCTGACCAATAATATCTGA	60
Db	1	GAACACAGTCTAAATTAATTAATTAACACCAAGAACTGCTGACCAATAATATCTGA	60
Qy	61	ATGAAAAATCAATTTCTGCTGCTAACTTTAGCGCTTTTAAAGCGAAGCCAGTTACATGCT	120
Db	61	ATGAAAAATCAATTTCTGCTGCTAACTTTAGCGCTTTTAAAGCGAAGCCAGTTACATGCT	120
Qy	121	CAACACAGCTCGCAGTCGGCTTATGTTAGAGATCAATTAAGAAAGACCGAAGTAGCAATT	180
Db	121	CAACACAGCTCGCAGTCGGCTTATGTTAGAGATCAATTAAGAAAGACCGAAGTAGCAATT	180
Qy	181	CCCATGCGAGATGGAAAAATTTACTCGCATCTACAGTTCACAAAGACAAATCCAAG	240
Db	181	CCCATGCGAGATGGAAAAATTTACTCGCATCTACAGTTCACAAAGACAAATCCAAG	240
Qy	241	AAATATCCAGTTTGTCTCAATAGAACGCCCTACACGGTTTCACTTATGGCGCAAGACGAA	300
Db	241	AAATATCCAGTTTGTCTCAATAGAACGCCCTACACGGTTTCACTTATGGCGCAAGACGAA	300
Qy	301	TATAAAAAGCTTGGGAAACTTTTCCCAATGATGCGTGAAGGCTATATTTTCGTTTAC	360
Db	301	TATAAAAAGCTTGGGAAACTTTTCCCAATGATGCGTGAAGGCTATATTTTCGTTTAC	360
Qy	361	CAGGATGTCCTGGCAAGTGAAGCAAGTGAATTTTGAAGATATACGTCCGACCAAG	420
Db	361	CAGGATGTCCTGGCAAGTGAAGCAAGTGAATTTTGAAGATATACGTCCGACCAAG	420
Qy	421	TACAGCAAGATAAAAAGCAATCGATGAAGTACGGATACCTATGATGCGCTGAATGG	480
Db	421	TACAGCAAGATAAAAAGCAATCGATGAAGTACGGATACCTATGATGCGCTGAATGG	480
Qy	481	TTACAGAAAAATCTCAAAAACTAATATGGCAAGCCGGCTCTATGGGATTTCTATCCA	540
Db	481	TTACAGAAAAATCTCAAAAACTAATATGGCAAGCCGGCTCTATGGGATTTCTATCCA	540
Qy	541	GGCTTCTATTCTACCGTCGGATTGGTCAAAACACACCGGCTTGAAGGCAAGTCTCCCA	600
Db	541	GGCTTCTATTCTACCGTCGGATTGGTCAAAACACACCGGCTTGAAGGCAAGTCTCCCA	600
Qy	601	CAGGCTCCCGTAAACAGACTGGTATATCGCGACCGACTTCCACCAATAATGGGCTATTGTTT	660

Db	601	CAGGCTCCCGTAAACAGACTGGTATATCGCGACCGACTTCCACCAATAATGGGCTATTGTTT	660
Qy	661	CTTCAGGATGCAATTTACATTCATGTCACCTTTTGGTGTCCCTCGTCCAAAACCCATTACA	720
Db	661	CTTCAGGATGCAATTTACATTCATGTCACCTTTTGGTGTCCCTCGTCCAAAACCCATTACA	720
Qy	721	CCGGATCAATTTAAGGCGCAAAATTCAGATCAAGAAGCCGATAAATAAATTAATTTTGA	780
Db	721	CCGGATCAATTTAAGGCGCAAAATTCAGATCAAGAAGCCGATAAATAAATTAATTTTGA	780
Qy	781	GAAGCAGAAACAGCGCGGAACTCAAAAGAAATGATTTTGTGTGATCTCGTCAAAATTTGG	840
Db	781	GAAGCAGAAACAGCGCGGAACTCAAAAGAAATGATTTTGTGTGATCTCGTCAAAATTTGG	840
Qy	841	AATGACCTGTTTAAAGCATCCGACATGATGATTTTGGAAATCGGTGATCACGAAT	900
Db	841	AATGACCTGTTTAAAGCATCCGACATGATGATTTTGGAAATCGGTGATCACGAAT	900
Qy	901	TCCTTACAGGAGTAAACACAGCTGTGATGCTGTTGGTGTCTTTTGAACGCGAAGAT	960
Db	901	TCCTTACAGGAGTAAACACAGCTGTGATGCTGTTGGTGTCTTTTGAACGCGAAGAT	960
Qy	961	GCTTATCGAAACATTTAAGACCTCAATTCGATGAGGATAAAGCAAAAAACAACTCG	1020
Db	961	GCTTATCGAAACATTTAAGACCTCAATTCGATGAGGATAAAGCAAAAAACAACTCG	1020
Qy	1021	ATTTTAGTCGGGACCTTGGTATCATGCGCGTGGTTCGTGAGAGGAACTATTATA	1080
Db	1021	ATTTTAGTCGGGACCTTGGTATCATGCGCGTGGTTCGTGAGAGGAACTATTATA	1080
Qy	1081	GCTGATATCCAAATTTGAGAAAAAACAAGTATTAATCAGGAACTTTTGAACAACA	1140
Db	1081	GCTGATATCCAAATTTGAGAAAAAACAAGTATTAATCAGGAACTTTTGAACAACA	1140
Qy	1141	TTTTTCAAAATATTAACCTAAAGAGATGAAGAACTTCGCGCCCTTCGAAGCTAAATTTT	1200
Db	1141	TTTTTCAAAATATTAACCTAAAGAGATGAAGAACTTCGCGCCCTTCGAAGCTAAATTTT	1200
Qy	1201	GTTTCAGGACGACGATGGAACATTTCCGAAAGTGGCCACCAAAAAATGTAGAGACA	1260
Db	1201	GTTTCAGGACGACGATGGAACATTTCCGAAAGTGGCCACCAAAAAATGTAGAGACA	1260
Qy	1261	AAAAAATCTACTTCCAACTCAGGGAACCTTCGATTTTGACAAAGTTCAACGTACAGAT	1320
Db	1261	AAAAAATCTACTTCCAACTCAGGGAACCTTCGATTTTGACAAAGTTCAACGTACAGAT	1320
Qy	1321	TCCTGGGATGAATGTAACAGCCCTTAATAAACTGTTCGCGATCAAGGTGGGGTAAT	1380
Db	1321	TCCTGGGATGAATGTAACAGCCCTTAATAAACTGTTCGCGATCAAGGTGGGGTAAT	1380
Qy	1381	CAAAACCGAACACGGGAGTATATGATAGATCAACGTTTCGCGGCTAGTCGCCCTGAT	1440
Db	1381	CAAAACCGAACACGGGAGTATATGATAGATCAACGTTTCGCGGCTAGTCGCCCTGAT	1440
Qy	1441	GTCATGTTTATCAAAACGGAACCTTGACGAGACCTGACGATAGTAGGCCCCCAATCAA	1500
Db	1441	GTCATGTTTATCAAAACGGAACCTTGACGAGACCTGACGATAGTAGGCCCCCAATCAA	1500
Qy	1501	AACCTTCTCAAAGTTTCTTCAACAGGAAACAGACGCGGACTATGTTGTCAAACTGATGAC	1560
Db	1501	AACCTTCTCAAAGTTTCTTCAACAGGAAACAGACGCGGACTATGTTGTCAAACTGATGAC	1560
Qy	1561	GTTTATCGGATGATGACGCAAGTTATCAAGGAAAAAACAATGGTGGATCAATGATG	1620
Db	1561	GTTTATCGGATGATGACGCAAGTTATCAAGGAAAAAACAATGGTGGATCAATGATG	1620
Qy	1621	GTACGTGTGATGATCATGGCGGGAATACCGAAATGGTTTCGATTAAGCGCAGGCTTG	1680
Db	1621	GTACGTGTGATGATCATGGCGGGAATACCGAAATGGTTTCGATTAAGCGCAGGCTTG	1680
Qy	1681	ACTCCAGGATGTCGAAAAAGGTGAAATTTTGAATGTCAGAGCTTGGCGCATACCTTCAA	1740
Db	1681	ACTCCAGGATGTCGAAAAAGGTGAAATTTTGAATGTCAGAGCTTGGCGCATACCTTCAA	1740

QY 1741 AAAGGACATCGCATTTAGCTTACAGGTACAAACTCATGGTTCCGCTGCGACAAAGAAAT 1800  
DB 1741 AAAGGACATCGCATTTAGCTTACAGGTACAAACTCATGGTTCCGCTGCGACAAAGAAAT 1800  
QY 1801 CCACAGGTGTTTAAAGCACTTATACAGCTACCAAGCTGATTTCCGCAAGCTACCCAA 1860  
DB 1801 CCACAGGTGTTTAAAGCACTTATACAGCTACCAAGCTGATTTCCGCAAGCTACCCAA 1860  
QY 1861 COTATTTTACAGTGTGAACATGCAATGCAATCATCATGAAATTTCTGCTCAAGATTAG 1920  
DB 1861 CGTATTTTACAGTGTGAACATGCAATGCAATCATCATGAAATTTCTGCTCAAGATTAG 1920  
QY 1921 CAGGTAAATTCGAAA 1935  
DB 1921 CAGGTAAATTCGAAA 1935

## RESULT 4

US-10-859-405-11  
; Sequence 11, Application US/10859405  
; Publication No. US20050032154A1  
; GENERAL INFORMATION:  
; APPLICANT: YOKOZEKI, KENZO  
; APPLICANT: SUZUKI, SONOKO  
; APPLICANT: HARA, SEIICHI  
; APPLICANT: ABE, ISAO  
; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN  
; FILE REFERENCE: 254070USO  
; CURRENT APPLICATION NUMBER: US/10/859,405  
; CURRENT FILING DATE: 2004-06-03  
; PRIOR APPLICATION NUMBER: US 60/491,547  
; PRIOR FILING DATE: 2003-08-01  
; PRIOR APPLICATION NUMBER: JP 2002-218958  
; PRIOR FILING DATE: 2002-07-26  
; NUMBER OF SEQ ID NOS: 21  
; SOFTWARE: PatentIn version 3.3  
; SEQ ID NO 11  
; LENGTH: 1935  
; TYPE: DNA  
; ORGANISM: Sphingobacterium sp.  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (61)..(1917)  
US-10-859-405-11

Query Match 100.0%; Score 1935; DB 8; Length 1935;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 1935; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 GAAACCAAGTGTAATAATTATATTTACACCAAGAAATGACTGAAACAAATAATTAATCTGA 60  
DB 1 GAAACCAAGTGTAATAATTATATTTACACCAAGAAATGACTGAAACAAATAATTAATCTGA 60  
QY 61 ATGAAAAATACAAATTCGTGCTAACTTTAGCGCTTTTAAAGCGCAAGCCAGTTACATGCT 120  
DB 61 ATGAAAAATACAAATTCGTGCTAACTTTAGCGCTTTTAAAGCGCAAGCCAGTTACATGCT 120  
QY 121 CAAACAGCTGCCGCTCGCTTATGTTAGAGATCATATTGAAAGACCGAAGTAGCAATTT 180  
DB 121 CAAACAGCTGCCGCTCGCTTATGTTAGAGATCATATTGAAAGACCGAAGTAGCAATTT 180  
QY 181 CCCATCGGAGATGGGAAAAATTTATTCTGGATCTACAGTCCAAAAAGACAAATCCAAAG 240  
DB 181 CCCATCGGAGATGGGAAAAATTTATTCTGGATCTACAGTCCAAAAAGACAAATCCAAAG 240  
QY 241 AAATATCCAGTTTGTCTCAATAGAACGCCCTACACGGTTTCACTTTATGGGCGAACGAA 300  
DB 241 AAATATCCAGTTTGTCTCAATAGAACGCCCTACACGGTTTCACTTTATGGGCGAACGAA 300  
QY 301 TATAAAAAAGCTTGGGAAACTTTCCCAAATGATGCGTGAAGGCTATATTTTGGTTTAC 360  
DB 301 TATAAAAAAGCTTGGGAAACTTTCCCAAATGATGCGTGAAGGCTATATTTTGGTTTAC 360

DB 301 TATAAAAAAGCTTGGGAAACTTTCCCAAATGATGCGTGAAGGCTATATTTTGGTTTAC 360  
QY 361 CAGGATGTCGTCGCAAGTGGATGAGCGAAGTGTATTTTGAAGATATACGTCCGACCAAG 420  
DB 361 CAGGATGTCGTCGCAAGTGGATGAGCGAAGTGTATTTTGAAGATATACGTCCGACCAAG 420  
QY 421 TACAGCAAGATATAAAGACCAATCCATGAAAGTACGATACCTATGATGCGCTGCAATGG 480  
DB 421 TACAGCAAGATATAAAGACCAATCCATGAAAGTACGATACCTATGATGCGCTGCAATGG 480  
QY 481 TTACAGAAAAATCTCAAAAACTATATGCGCAAGCGGCTCTATGGGATTTTCTTATCCA 540  
DB 481 TTACAGAAAAATCTCAAAAACTATATGCGCAAGCGGCTCTATGGGATTTTCTTATCCA 540  
QY 541 GCGTCTATCTACCGTCGATTTGTCACCAACACACCGAGCTTGAAGGCGAGCTCTCCCA 600  
DB 541 GCGTCTATCTACCGTCGATTTGTCACCAACACACCGAGCTTGAAGGCGAGCTCTCCCA 600  
QY 601 CAGGCTCCGCTAAACAGACTGGTATATCGGCGACGACTTCCACCAATATGGCGGTATGTTT 660  
DB 601 CAGGCTCCGCTAAACAGACTGGTATATCGGCGACGACTTCCACCAATATGGCGGTATGTTT 660  
QY 661 CTTCAGGATGCATTTTACATTCATGTCAACCTTTGCTGTCCTCTGTCGCAAAACCCATTACA 720  
DB 661 CTTCAGGATGCATTTTACATTCATGTCAACCTTTGCTGTCCTCTGTCGCAAAACCCATTACA 720  
QY 721 CCGGATCAATTTAAGGGCAAAATTCAGATCAAAAGACCGATATAATAAATTTTGTGCA 780  
DB 721 CCGGATCAATTTAAGGGCAAAATTCAGATCAAAAGACCGATATAATAAATTTTGTGCA 780  
QY 781 GAAGCAGAAACAGCGCGGAACTCAAGAAAGTATTTTGTGACTCCGTACCAATTTTGG 840  
DB 781 GAAGCAGAAACAGCGCGGAACTCAAGAAAGTATTTTGTGACTCCGTACCAATTTTGG 840  
QY 841 AATGACCTGTTTAAAGCATCCGACTATCATGATTTTGGAAATCCGCTGTGATCAGGAT 900  
DB 841 AATGACCTGTTTAAAGCATCCGACTATCATGATTTTGGAAATCCGCTGTGATCAGGAT 900  
QY 901 TCTTTACAGGAGTAAACACGCTGTGATGTTGTTGTTGTTTCTTTGACGCGAAGAT 960  
DB 901 TCTTTACAGGAGTAAACACGCTGTGATGTTGTTGTTGTTTCTTTGACGCGAAGAT 960  
QY 961 GCTTATGGAACATTTAAGACCTACCAATCGATTTAGGATATAAGCAAAACCAACTCG 1020  
DB 961 GCTTATGGAACATTTAAGACCTACCAATCGATTTAGGATATAAGCAAAACCAACTCG 1020  
QY 1021 ATTTTAGTCGCGGACCTTGTGATCATGCGCTGTTGTTGTTGTTGTTGTTGTTGTTGTT 1080  
DB 1021 ATTTTAGTCGCGGACCTTGTGATCATGCGCTGTTGTTGTTGTTGTTGTTGTTGTTGTT 1080  
QY 1081 GGTGATATCCAAATTTGAGAAAAAACCAAGTATTTACTTATCAGGAAACAAATTTGAAACCA 1140  
DB 1081 GGTGATATCCAAATTTGAGAAAAAACCAAGTATTTACTTATCAGGAAACAAATTTGAAACCA 1140  
QY 1141 TTTTCAAATATTTACCTTAAAGATGAAGAAACCTTCGCGCCCTTCGGAAGCTAACTTTT 1200  
DB 1141 TTTTCAAATATTTACCTTAAAGATGAAGAAACCTTCGCGCCCTTCGGAAGCTAACTTTT 1200  
QY 1201 GTTTCAGGACGACGATGGAACATTTGCAAGTGGCCACCAAAATAATGTAGAGACA 1260  
DB 1201 GTTTCAGGACGACGATGGAACATTTGCAAGTGGCCACCAAAATAATGTAGAGACA 1260  
QY 1261 AAAAACTATATCTTCCAACTCAGGGGAAACTTTGGATTTGACAAAGTTCAAGCTACAGAT 1320  
DB 1261 AAAAACTATATCTTCCAACTCAGGGGAAACTTTGGATTTGACAAAGTTCAAGCTACAGAT 1320  
QY 1321 TCCTGGGATGAATATGTAAAGACCTTAATAAAGCTTTCGCAATCAAGGTGGGTAAAT 1380  
DB 1321 TCCTGGGATGAATATGTAAAGACCTTAATAAAGCTTTCGCAATCAAGGTGGGTAAAT 1380  
QY 1381 CAAAACCGAACACCGGAGTATATGTTAGATGATCAACGCTTTTCGCGGCTAGTCCGCTGAT 1440  
DB 1381 CAAAACCGAACACCGGAGTATATGTTAGATGATCAACGCTTTTCGCGGCTAGTCCGCTGAT 1440





Db 1021 ATTTTAGTCGGGACCTTGGTATCATGCGGTTGGTTCGTGCGAGGAACTATTTA 1080  
QY 1081 GGTGATATCAATTTGAGAAAAAACACAGTATTACTTATCAGGAACAATTTGAAACAACA 1140  
Db 1081 GGTGATATCAATTTGAGAAAAAACACAGTATTACTTATCAGGAACAATTTGAAACAACA 1140  
QY 1141 TTTTTCATATATACCTAAAGATGAAGAACTTCGCCCTTCGAGCTTAACATTTT 1200  
Db 1141 TTTTTCATATATACCTAAAGATGAAGAACTTCGCCCTTCGAGCTTAACATTTT 1200  
QY 1201 GTTTCAGGAGCAACGAATGGAACATTTGCAACAGTGGCCACCAAAAAATGTAGAGACA 1260  
Db 1201 GTTTCAGGAGCAACGAATGGAACATTTGCAACAGTGGCCACCAAAAAATGTAGAGACA 1260  
QY 1261 AAAAACTATATCTTCAACCTCAGGGGAACTTTGGATTGACAAAGTTCAACGTACAGAT 1320  
Db 1261 AAAAACTATATCTTCAACCTCAGGGGAACTTTGGATTGACAAAGTTCAACGTACAGAT 1320  
QY 1321 TCCTGGGATGAATGTATAACAGACCTTAATAACCTGTTCCGCATCAAGTGGGTAAAT 1380  
Db 1321 TCCTGGGATGAATGTATAACAGACCTTAATAACCTGTTCCGCATCAAGTGGGTAAAT 1380  
QY 1381 CAAAAACCGAACACGGAGTATATGTAGATGATCAACGTTTCGCGGTAGTCGCCCTGAT 1440  
Db 1381 CAAAAACCGAACACGGAGTATATGTAGATGATCAACGTTTCGCGGTAGTCGCCCTGAT 1440  
QY 1441 GTCATGTTTATCAACCGAACCGTTGACGAGGACCTGACGATAGTAGGCCCAATCAA 1500  
Db 1441 GTCATGTTTATCAACCGAACCGTTGACGAGGACCTGACGATAGTAGGCCCAATCAA 1500  
QY 1501 AACTTCTCAAGTTTCTTCAACAGGAACAGACGGGACTATGTTGTCAAACTGATTGAC 1560  
Db 1501 AACTTCTCAAGTTTCTTCAACAGGAACAGACGGGACTATGTTGTCAAACTGATTGAC 1560  
QY 1561 GTTATCCGAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1620  
Db 1561 GTTATCCGAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1620  
QY 1621 GTACGTGTGATGATCATGCGGGGAAATACCGAAATGTTTCGATAAAGCGAGGCCCTTG 1680  
Db 1621 GTACGTGTGATGATCATGCGGGGAAATACCGAAATGTTTCGATAAAGCGAGGCCCTTG 1680  
QY 1681 ACTCAGGTATGGTGAAAGGTGAATTTTGAATGCCAGAGCTTTGGCGATACCTTTCAA 1740  
Db 1681 ACTCAGGTATGGTGAAAGGTGAATTTTGAATGCCAGAGCTTTGGCGATACCTTTCAA 1740  
QY 1741 AAAGCATCGATTTATGTTTCAAGTACAAACTCATGTTTCCGCTGGCAGACGAAT 1800  
Db 1741 AAAGCATCGATTTATGTTTCAAGTACAAACTCATGTTTCCGCTGGCAGACGAAT 1800  
QY 1801 CCACAGGTGTTTATGACCTTATACAGCTACCAAGCTGATTTCCGCAAAAGCTACCCAA 1860  
Db 1801 CCACAGGTGTTTATGACCTTATACAGCTACCAAGCTGATTTCCGCAAAAGCTACCCAA 1860  
QY 1861 CGTATTTTTCAGGATGTGAACATGCAATGCAATACATCGAATTTTCTCTCAAGATTAG 1920  
Db 1861 CGTATTTTTCAGGATGTGAACATGCAATGCAATACATCGAATTTTCTCTCAAGATTAG 1920  
QY 1921 CAGGTAAATTCGAAA 1935  
Db 1921 CAGGTAAATTCGAAA 1935

RESULT 6

US-11-050-829-19  
; Sequence 19, Application US/11050829  
; Publication NO. US20050176150A1  
; GENERAL INFORMATION:  
; APPLICANT: KIRA, IKIO  
; APPLICANT: YOKOZEKI, KENZO  
; APPLICANT: SUZUKI, SONOKO  
; APPLICANT: MIHARA, YASUHIRO  
; APPLICANT: HIRAO, YOSHINORI

; TITLE OF INVENTION: MUTANT MICROORGANISM AND METHOD FOR PRODUCING PEPTIDE USING THE  
; FILE REFERENCE: SAME  
; CURRENT APPLICATION NUMBER: US/11/050,829  
; CURRENT FILING DATE: 2005-02-07  
; PRIOR APPLICATION NUMBER: US 60/617,060  
; PRIOR FILING DATE: 2004-10-12  
; PRIOR APPLICATION NUMBER: JP 2004-029844  
; PRIOR FILING DATE: 2004-02-05  
; NUMBER OF SEQ ID NOS: 22  
; SOFTWARE: PatentIn version 3.3  
; SEQ ID NO 19  
; LENGTH: 1935  
; TYPE: DNA  
; ORGANISM: *Sphingobacterium* sp.  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (61)..(1917)  
US-11-050-829-19

Query Match 100.0%; Score 1935; DB 10; Length 1935;

Best Local Similarity 100.0%; Pred. No. 0;

Matches 1935; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAACCAAGTGTAATAATTAATTTACACCAAGAAATGTACTGAACAATAATTAATCTGA 60  
Db 1 GAACCAAGTGTAATAATTAATTTACACCAAGAAATGTACTGAACAATAATTAATCTGA 60  
QY 61 ATGAAAAATACATTTTCGTGCTAACTTTAGCGCTTTTAAAGCGCAAGCCAGTTACATGCT 120  
Db 61 ATGAAAAATACATTTTCGTGCTAACTTTAGCGCTTTTAAAGCGCAAGCCAGTTACATGCT 120  
QY 121 CAACAGCTGCCGACTCGGCTTTATGTTAGAGATCAATTAAGAAAAAGCCGAAGTAGCAATT 180  
Db 121 CAACAGCTGCCGACTCGGCTTTATGTTAGAGATCAATTAAGAAAAAGCCGAAGTAGCAATT 180  
QY 181 CCCATCGAGATGGAAAAAATTTATTTACTGGGATCTACAGTCCCAAAAGACAAATCCAAG 240  
Db 181 CCCATCGAGATGGAAAAAATTTATTTACTGGGATCTACAGTCCCAAAAGACAAATCCAAG 240  
QY 241 AAATATCCAGTTTTCCTCAATAGAACGCCCTACACGGTTTACCTTTATGGGCGAAGCGAA 300  
Db 241 AAATATCCAGTTTTCCTCAATAGAACGCCCTACACGGTTTACCTTTATGGGCGAAGCGAA 300  
QY 301 TATAAAAAAGCTTGGGAAACCTTTCCCAAAATGATCGCTGAAGGCTATATTTTCGTTTAC 360  
Db 301 TATAAAAAAGCTTGGGAAACCTTTCCCAAAATGATCGCTGAAGGCTATATTTTCGTTTAC 360  
QY 361 CAGGATGTCCTGGCAAGTGGATGAGCGAAGTGAATTTTGAAGATATACGTCGACCGACG 420  
Db 361 CAGGATGTCCTGGCAAGTGGATGAGCGAAGTGAATTTTGAAGATATACGTCGACCGACG 420  
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Db 661 CTTCAGGATGCATTTTACATTTCAATTCATGTTCAACCTTTTGGTGTCCCTCGTCCAAAAACCCATTACA 720  
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Db 1141 TTTTTCAAATATTACTTAAAGATGAAGAAACCTTCGCCCTTCGGAAGCTAAATTTTT 1200  
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Db 1201 GTTTTCAGCAGCAAGATGGAACATTTTCGAACAGTGGCCACCAAAATGTAGAGACA 1260  
Qy 1261 AAAAACTATCTTCCAACTCAGGGGAAACCTTGGATTTGACAAAGTTTCAAGCTACAGAT 1320  
Db 1261 AAAAACTATCTTCCAACTCAGGGGAAACCTTGGATTTGACAAAGTTTCAAGCTACAGAT 1320  
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Db 1321 TCCTGGGATGAATGTAAACAGACCTTAATAAACCTGTTCGCGCTAGTCGCCCTGAT 1380  
Qy 1381 CAAACCCGACACAGGAGTATGTAGATGATCAACCTTTTCGCGCTAGTCGCCCTGAT 1440  
Db 1381 CAAACCCGACACAGGAGTATGTAGATGATCAACCTTTTCGCGCTAGTCGCCCTGAT 1440  
Qy 1441 GTCATGGTTTATCAACCGGAAACCGTTGACGGAGGACCTGACGATAGTAGGCCCAATCAA 1500  
Db 1441 GTCATGGTTTATCAACCGGAAACCGTTGACGGAGGACCTGACGATAGTAGGCCCAATCAA 1500  
Qy 1501 AACTTTCTCAAAGTTTCTTCAACAGAAACAGACGCGGACTATGTTGTCAAACCTGATGAC 1560  
Db 1501 AACTTTCTCAAAGTTTCTTCAACAGAAACAGACGCGGACTATGTTGTCAAACCTGATGAC 1560  
Qy 1561 GTTTATCCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1620  
Db 1561 GTTTATCCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1620  
Qy 1621 GTACCTGTGTGATCATGCGGGGAAATACCGAAATGGTTTCGATAAAGCGCAGGCCCTTG 1680  
Db 1621 GTACCTGTGTGATCATGCGGGGAAATACCGAAATGGTTTCGATAAAGCGCAGGCCCTTG 1680  
Qy 1681 ACTCCAGGTATGGTTCGAAAGGTGAATTTTGAATGCGCAGAGCTTTCGCGATACCTTTCAA 1740  
Db 1681 ACTCCAGGTATGGTTCGAAAGGTGAATTTTGAATGCGCAGAGCTTTCGCGATACCTTTCAA 1740  
Qy 1741 AAAGACATCCGATTTATGGTTTCAGGTACAAACTCATGTTTTCGCTGCGCAGAGCAAT 1800  
Db 1741 AAAGACATCCGATTTATGGTTTCAGGTACAAACTCATGTTTTCGCTGCGCAGAGCAAT 1800  
Qy 1801 CCACAGGTGTTTATGACCTTTATACAGCTACCAAGCTGATTTTCGCGCAAGCTACCCAA 1860

Db 1801 CCACAGGTGTTTATGACCTTTATACAGCTACCAAGCTGATTTTCGCGCAAGCTACCCAA 1860  
Qy 1861 CGTATTTTTCAGGATGCAACAATGCCACATACATCGAATTTTCTGTCCTCAAGATTAG 1920  
Db 1861 CGTATTTTTCAGGATGCAACAATGCCACATACATCGAATTTTCTGTCCTCAAGATTAG 1920  
Qy 1921 CAGGTAAATTCGAAA 1935  
Db 1921 CAGGTAAATTCGAAA 1935  
RESULT 7  
US-10-763-179-5  
; Sequence 5, Application US/10763179  
; Publication No. US20040204577A1  
; GENERAL INFORMATION:  
; APPLICANT: HARA, SEIICHI  
; APPLICANT: YOKOZAKI, KENZO  
; APPLICANT: ABE, ISAO  
; APPLICANT: TONOUCHI, NAOTO  
; APPLICANT: JOJIMA, YASUOKO  
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES  
; FILE REFERENCE: 247848USO  
; CURRENT APPLICATION NUMBER: US/10763.179  
; CURRENT FILING DATE: 2004-01-26  
; PRIOR APPLICATION NUMBER: JP 2003-16765  
; PRIOR FILING DATE: 2003-01-24  
; PRIOR APPLICATION NUMBER: US 60/491,612  
; PRIOR FILING DATE: 2003-08-01  
; NUMBER OF SEQ ID NOS: 27  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 5  
; LENGTH: 2024  
; TYPE: DNA  
; ORGANISM: Empedobacter brevis  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (61)..(1908)  
; OTHER INFORMATION:  
; US-10-763-179-5

Query Match 39.8%; Score 771; DB 8; Length 2024;  
Best Local Similarity 65.5%; Pred. No. 7.8e-201;  
Matches 1144; Conservative 0; Mismatches 600; Indels 3; Gaps 1;  
Qy 125 CAGCTGCCGACTCGGCTTATGATGATCAATTTAGAAAGACCGAAGTAGCAATTTCCA 184  
Db 134 CAAAGCAGATTTCTGCTTATGTCGCGCAATTTACGAAAAAATAGAACAGTAATTTCCA 193  
Qy 185 TGGCAGATGGGCAAAAAATTTTACTGCGATCTACAGTCCAAAGACAAAAATCCAAAGAAAT 244  
Db 194 TGGCAGATGGGCAAAAAATTTTACTGCGATCTACAGTCCAAAGACAAAAATCCAAAGAAAT 253  
Qy 245 ATCCAGTTTTCCTCAATAGAACGCGCTTACACGCTTTTACCTTTATGGGCGAGAACGAATATA 304  
Db 254 ATCCGTTTTCCTCAATAGAACGCGCTTACACGCTTTTACCTTTATGGGCGAGAACGAATATA 313  
Qy 305 AAAAAAGCTTGGGAAAACCTTCCCAATAGATGCGTGAAGGCTATATTTTGGTTTACCGAGG 364  
Db 314 AGAAATCTGTAGGAAAATTTTCTCAGAAAATGCGCGAAGGTTTATTTTGGTTTACCAAG 373  
Qy 365 ATGTCGCGGCAAGTGGATGAGCGAAGTGAATTTTGAAGATATACGTCGCGACCAAGTACA 424  
Db 374 ATGTCGCGGCAAGTGGATGAGCGAAGTGAATTTTGAAGATATACGTCGCGACCAAGTACA 433  
Qy 425 GCAAGATATAAAAAAGCAATCGATGAAAGTACCGATACCTATGATGCGCTTGAATGGTTTAC 484  
Db 434 CAAAAGTAAAGGCAATTCGCAAGACAGATACATTTTATGATACGCTAGATGCGCTTGG 493  
Qy 485 AGAAAAATCTCAAAAACTATTAATGCAAGCGCGGCTCTATGGGATTTTCTTCCATCCAGGCT 544  
Db 494 CTAAAAAATCTGGAAGAAATTTACGAAAAAAGCTGGAATTTTATGGAATTTTCTGATCTCTGTT 553

QY 545 TCTATTCTACCGTCGATTTGGTCAAAAACACACCGAGCTTGAAGCGAGTCTCCCCACAGG 604  
Db 554 TTTATTTCGCAATAGATTTGGTTAAATTCGCATCTCAACCTAAAGCCGTTTCGCCACAG 613  
QY 605 CTCCTGTACACACTGGTATATCGCGACGACTCCACCATAATGGCGTATTTCTTTC 664  
Db 614 CGCCCGTTACCAATTTGGTTTGTAGTGACATTTTCATCATATGAGTTTATTTCTTGA 673  
QY 665 AGGATGCAATTTCAATTCATGCTCAACCTTTGGTGTCCCTCGTCCAAAACCCATTACACCGG 724  
Db 674 ATGATCTCTTCTCATTTATGACTTTTGTGTGTAAGAGCTCGGCAACCAATTTACGCCAG 733  
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QY 785 CAGGAACAGCGCGGAACCTCAAGAAAAGTATTTTGGTGACTCCGTACAAATTTTGGAAATG 844  
Db 791 GTGGCTCTGTAAGAGTTGAAGATTAATATTTGCAAGATAATATCAAGTTTTCAGATG 850  
QY 845 ACCTGTTTAAGCATCCGACTATGATGATTTTGGAAATCGCGTGTGATCACGAATTTCT 904  
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QY 905 TACAGAGATAAACACAGCTGTGATGTTGGTGGTGTCTTTTGAACGGGAAGATGCTT 964  
Db 911 TAACTAAACGTGCAACCTGCTGTAATGACCGTTTGGAGGTTTTTTTGTGACAGAGATGCT 970  
QY 965 ATGGAACATTTAAGCACTTACCAATCGATGAGGATAAAGCAAAAACCACTCGATTT 1024  
Db 971 ACGGCGCTTTTGAACCGTATAAGCAATTTGAGAAAACAAATCCGAAAGCAACAATATTA 1030  
QY 1025 TAGTCGCGGACCTTGGTATCATGCGGTGTGGTTCGTGCAAGAGAACTATTTAGGTG 1084  
Db 1031 TGGTTCGCGACCTTGGTTTCATGTTGGTGGTTCGTAGCAACGGAAGTACTTTTGAG 1090  
QY 1085 ATATCCAAATTTGAGAAAAAACAGTATTAATTCATGAGAAACAATTTGAACAACTTT 1144  
Db 1091 ATATGCAATTTGCATCGAATACAAGTGAGCATTTATCAGCAAGAAATAGAAATGGCTTTT 1150  
QY 1145 TCAATATTTACCTAAAGATGAAGAACTTCGCCCTTCCGAAGCTAACTTTTGT 1204  
Db 1151 TTAATTTATTTACTTAAAGATNAAGGTAATTTTAAACCAACCGAGCTCAATTTTATTA 1210  
QY 1205 CAGGCAACCAAGTGAACCAATTTGCAACAGTGGCCACCAAAAATGTAGAGACAAA 1264  
Db 1211 CGGGATCTAACGATGAAGAAACAATTTGATGTTGGCCACCAAAAATGTAAACACAAA 1270  
QY 1265 AACTATCTTCCAACTCAGGGGAACTTGGATTTTGACAAAGTTCAACGTACAGATTCCT 1324  
Db 1271 AAATTTATTTGCAACAAAATGTAATAAGTCTTTTAAATAAACCATAACAACACTACTT 1330  
QY 1325 GGGATGAATATGTAACAGACCTTAATAACCTGTTCCGGATCAAGTGGGGTAATTCAAA 1384  
Db 1331 TTGACGAATATGTTGAGATCCAAATTTCTCCAGTTCTTTTTCAGGAGGAGTTTATGAAA 1390  
QY 1385 ACCGAACAGGAGTATATGATGATGATCAAGTTTTCGGCTAGTCCCTGATGTCA 1444  
Db 1391 CTCGTTCAAGAGAAATATATGGTCGATGATCAACGCTTTTCTACTCTGCTCGATGTA 1450  
QY 1445 TGGTTTATCAACCGGAACCGTTTGAAGGAGCACTGACGATAGTAGGCCCAATCAAAAAC 1504  
Db 1451 TGGTGTATCAATCTGATTTTGAACAGAGATATTAAGCTTCTGCTGCTGTATCAATC 1510  
QY 1505 TTCTCAAGTTTCTTCAACAGAAACAGACCGGAGTATGTTGTCAAACTGATTTGACGTTT 1564  
Db 1511 ATTTAGTGGTTCTACTACGGGAAACAGACGCTGATTTGTTGTAATAATGATTTGATGTT 1570  
QY 1565 ATCCGAATGATGACGAGTATCAAGGAAACAAATGCTGATATCAAAATGATGATGAT 1624  
Db 1571 ATCTGAAACACGCAAAATTTAATAACAAATTAATGCTGATATCAAAATTTGATTC 1630  
QY 1625 GTGGTGAGATCATGCGGGGAAATACCGAAATGGTTTCGATAAAGCGCGGCTTGAATC 1684

Db 1631 GTGCAGAAATATATGCGCGAAATATAGAAATAGTTTCTTAACCCCGAAGCTATGGTTC 1690  
QY 1685 CAGGTATGTCGAAAAGGTGAATTTTGAATGCCAGAGTTTGGCATACCTTTCAAAAAAG 1744  
Db 1691 CGAATAAAGAAACAATGTACGTACAGATGCCAGATGTTGGACATACATTTAAGAAAG 1750  
QY 1745 GACATCGCAATATGTTTCAAGTACAAAATCTCATGTTTCCGCTGGGAGAACCAAAATCCAC 1804  
Db 1751 GACATCGCAATATGATTCAGATTCAGAAACAGTTGGTTCCTTTTAGCAGATCGCAATCCGC 1810  
QY 1805 AGGTGTTTTTACGACCTTATACAGCTACCAAGCTGATTTCCGAAAGCTACCAACGTA 1864  
Db 1811 AACAAATTTATGAATGTTTACGAAGCACTTCTTAAGAATTTATTTAAACAACCAACGACGAA 1870  
QY 1865 TTTTTCAT 1871  
Db 1871 TTTATCA 1877

RESULT 8

US-10-849-814-5  
; Sequence 5, Application US/10849814  
; Publication No. US20040219631A1  
; GENERAL INFORMATION:  
; APPLICANT: YOKOZEKI, KENZO  
; APPLICANT: SUZUKI, SONOKO  
; APPLICANT: HARA, SEIICHI  
; APPLICANT: ABE, ISAO  
; TITLE OF INVENTION: METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN TRI-  
; FILE REFERENCE: 252308USOCONT  
; CURRENT APPLICATION NUMBER: US/10/849,814  
; CURRENT FILING DATE: 2004-05-21  
; PRIOR APPLICATION NUMBER: PCT/JP03/09466  
; PRIOR FILING DATE: 2003-07-25  
; PRIOR APPLICATION NUMBER: JP 2002-218958  
; PRIOR FILING DATE: 2002-07-26  
; NUMBER OF SEQ ID NOS: 14  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 5  
; LENGTH: 2024  
; TYPE: DNA  
; ORGANISM: Empedobacter brevis  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (61)..(1908)  
; OTHER INFORMATION:  
US-10-849-814-5

Query Match 39.8%; Score 771; DB 8; Length 2024;  
Best Local Similarity 65.5%; Pred. No. 7, 8e-201;  
Matches 1144; Conservative 0; Mismatches 600; Indels 3; Gaps 1;

QY 125 CAGTCGCGACTCGGCTTATGTTAGAGATCATATTGAAAGACCGAAGTAGCAATTCCTCA 184  
Db 134 CAAAAGCAGATTCCTCTTATGTCGCGACAATTTACGAAAAAATAGAACAAAGTAAATTCGA 193  
QY 185 TCGGAGATGGGAAAAAATTTATTCTGCGATCTACAGTCCAAAAGACAAATCAAGAAAT 244  
Db 194 TCGCGATGGTACAAAGTTATTTACGCTATTTTACGCAAAAGATATAAACAACAAT 253  
QY 245 ATCCAGTTTGTCTCAATAGAACCGCTTACACGCTTTCACCTTATGGGAGAACGAATATA 304  
Db 254 ATCCGCTTTGTTAAATCGTACGCTTATACAGTTGCGCTTATGTTGTAATGATATA 313  
QY 305 AAAAAGCTTGGAAACTTTCCCAAAATGATGCGTGAAGGCTATATTTTGGTTTACCAG 364  
Db 314 AGAAATCGTTAGGAAATTTCTCACAAGAAATGCGCGAAGGTTTTATTTTGTTTTACCAAG 373  
QY 365 ATGTCGCTGGCAAGTGGATGACGAGGTTGATTTTGAAGATATACGTCGACCAACGATCA 424  
Db 374 ATGTGAGAGGAAAAATGGATGACGAGGCAATTTTGAAGATGTTTCGACCTATAAATCTTT 433





Db 134 CAAAAGCAGATTCTGCTATGTCGCGACAAATTTACGAAAAAATAGAACAAAGTAAATCCGA 193  
Qy 185 TCGAGATGGAAAAAATATTATTACTCGCATCTACAGTCCAAAGACAAATCCAGAAAT 244  
Db 194 TCGCGATGGTCAAAAGTTATTATTACAGCTATTATATCAGCCAAAAGATAAAACAAACAAAT 253  
Qy 245 ATCCAGTTTGTCTCAATAGAACGCCCTACACGGTTTCACTTTATGGCGAGAACGAATATA 304  
Db 254 ATCCCGTTTGTAAATCGTAGCCTTATACAGTTTGGCGCTTATGGTGAATGAATACATA 313  
Qy 305 AAAAAGCTTGGAAACTTTCCCAAAATGATCGTGAAGGCTATATTTCGTTTACCAGG 364  
Db 314 AGAAATCGTTAGGAAATTTCTACAGAAATCGCGAAGGTTTATTTTTGTTTACCAG 373  
Qy 365 ATGTCGTCGAGTGGATGAGCGAAGGTTGATTTGAAGATATATGTCGACACAGTACA 424  
Db 374 ATGTGAGAGGAAATGGATGAGCGAAGCGAAATTTGAAGATGTCGACCTATAAAATCCCTT 433  
Qy 425 GCAAAAGATAAAAAAGCAATCGATGAAAGTACGATACCTATGATGCGCTTGAATGTTAC 484  
Db 434 CAAAAGTAAAGGCAATTGACGAAAGCAGATACATTTGATACGCTAGAAATGGCTTG 493  
Qy 485 AGAAAAATCTCAAAACTATAATGCAAAAGCGGGCTCTATGGGATTTCTTATCCAGGCT 544  
Db 494 CTAAAAACTTGAAGAAATACACGAAAAAGCTGGAATTTATGGAATTTCTGATCTCGTT 553  
Qy 545 TCTATTCTACCGTCGGATGGTCAAAACACACCGAGCTTGAAGGAGTCTCCCCACAGG 604  
Db 554 TTTATTCGACAAATGATTTGGTTAAATTCGATCCAACTCTAAAGACCGGTTTCGCCACAAG 613  
Qy 605 CTCCTGTAACACACTGGTATATCGCGACGACTCCACCATAATGCGCTTGAATGTTCTTC 664  
Db 614 CGCCCGTTACCAATTTGGTTTTAGTGACGATTTTCATCAATGAGATTTTATTTCTGA 673  
Qy 665 AGGATGCAATTACATTCATGTCACACTTTGGTGTCTCTGTCCTCAAAACCCCAATTAACAGG 724  
Db 674 ATGATCTTCTCAITTAATGACTTTTTTTGGTGTAAAGCGTCGCGCAACCAATTTACGCCAG 733  
Qy 725 ATCAATTTAAGGGCAAAATTCAGATCAAGAGCCGATATAATATAACTTTTGTGAGAG 784  
Db 734 ATAAAGGTCGAAACGTTTGTGAATATCCAATAAAAGATAATATATAGATTTTATGCT--AA 790  
Qy 785 CAGGAACAGCGGGAACTCAAGAAAAAGTATTTTGGTGACTCCGTACAAATTTTGGAAATG 844  
Db 791 GTGGCTCTGTAAGAGTTGAAAGATAAATTTGCCAAGATAATATCAAGTTTTCACATG 850  
Qy 845 ACCTGTTTAAAGCATCCGACTATGATGATTTTGGAAATCGGCTGTGATCACGAATTTCTT 904  
Db 851 ATTTATTTGCGCATCCAGATTACGATCAATTTTGGCAAGATCGTAATGTTTACCACATT 910  
Qy 905 TACAGAGTAAACACAGCTGATGATGTTGGTGGTGTCTTTTCAACCGGGAAGATGCTT 964  
Db 911 TAACTAAGCTGCAACCTGCTGTAATACAGGTTGGAGGTTTTTTTGTATGCAAGAATGCT 970  
Qy 965 ATGGAACATTTAAGACCTACCAATCGATTGAGGATAAAGCAAAACCAACACTCGATT 1024  
Db 971 ACGGCGCTTTCGAAACGTTAAGCAATTTGAGAAACAAATCCGAAAGCAACAAATATA 1030  
Qy 1025 TAGTCGCGGACCTTGGTATCATGCGGTTGGGTTTCGTGCAAGAGAACTATTATGAGTG 1084  
Db 1031 TGGTTGCGGACCTTGGTTTCATGTTGGTTTGGTTCGTAGCAACGGAAGTACTTTTGGAG 1090  
Qy 1085 ATATCCAAATTTGAGAAAAAACCAAGTATTAATTCAGGAACAAATTTGAAACAAACATTTT 1144  
Db 1091 ATATGCAATTTGCAATCGAATCAAGTGAGCAATTTATCAGCAAGAAATAGAAATTTGCTTTT 1150  
Qy 1145 TCAATATTTACTTAAAGATGAAGAACTTCGCCCTTCGGAAGTAACTATTTTGTGTT 1204  
Db 1151 TTAATTTACTTTAAAGATTAAGTAATTTTAAACCAACCGAAGCTACAATTTTATTA 1210  
Qy 1205 CAGGACGAAACGAATGGAAACATTTTCGAACAGTGGCCACCAAAATGTAGACAAAAA 1264

Db 1211 CGGATCTAAACGAATGGAAACAAATTTGATGCTTGGCCACCAAAAAATGTAAACAACAAA 1270  
Qy 1265 AACTATATCTTCCAACTCAGGGGAACTTTGGATTTGCAAAAATTTCAACGTCAGATTCCT 1324  
Db 1271 AAATTTATTTGCAACAAAATGGTAAAAATAGCTTTTAAATAAAAACCAATACAACTACTTT 1330  
Qy 1325 GGGATGAATATGTAAACAGACCCCTAATAAAACCTGTTCCGCATCAAGGTGGGGTAAATCAAA 1384  
Db 1331 TTGAGATATGTTCCAGATCCAAATTTCTCAGTTTCTTATTCAGAGAGGATTTAGAAA 1390  
Qy 1385 ACCGAACCGGAGTATATGTAGATGATCAACGTTTTCGCGCTAGTCGCCCCGTGATCA 1444  
Db 1391 CTCGTTCAAGAGAAATATATGGTCGATGATCAACGCTTTGCTTCTACTGTCCTGATGTTA 1450  
Qy 1445 TGGTTTATCAACGGAACCGTTTGACGGAGGACCTCAGATAGTAGGCCCAATCAAAAAT 1504  
Db 1451 TGGTGATCAATCTGATATTTTGACAGAAGATATTAACGCTTGTGCTCTGTTATCAATC 1510  
Qy 1505 TTCTCAAGTTTCTTCAACAGGAACAGACGCGGACTATGTTGTCAAACTGATTGACGTTT 1564  
Db 1511 ATTTAGTGGTTTCTACTACGGGAACAGACGCTGATTAATGTTGTAATAATGATTGATGTTT 1570  
Qy 1565 ATCCGAATGATGACAGCAAGTTTATCAAGGAAAAACAATGCTGGATATCAAAATGATGGTAC 1624  
Db 1571 ATCTGAAAAACAGCGCAAAATTTAATAACAAATTAATGGCTGGATATCAAAATTTGATTC 1630  
Qy 1625 GTGGTGAGATCATGCGGGGGAATACCGAATGGTTTCGATTAAGCGCAGGCTTGACTC 1684  
Db 1631 GTGCAGAAATTTATGCGCGGAAAAATATAGAAAATAGTTTCTTAACCCCGAAGCTATGGTTC 1690  
Qy 1685 CAGGTATCGTCGAAAAGGTGAATTTGAAATGCGCAGAGTTTGGCAGTACCTTTCAAAAAAG 1744  
Db 1691 CGAATAAGAAACAAATGTACGATACAGATGCCAGATGTTGGACATACATTTAAGAAAG 1750  
Qy 1745 GACATCGCAATATGTTCCAGGTACAAAATCATGTTTTCCGCTGGCAGAACGAAATCCAC 1804  
Db 1751 GACATCGCAATATGATTCAGTTCAGAACAGTTGGTTTTCTTTAGCAGATCGCAATCCGC 1810  
Qy 1805 AGGTGTTTTTAGCACCTTATACAGTACCAAGCTGATTTCCGCAAGAGTACCCAAACGTA 1864  
Db 1811 AACAAATTTGAATGTTTTACGAAGCACTTCTTAAGATTAATTTAAAAACAAACGCAACGAA 1870  
Qy 1865 TTTTCA 1871  
Db 1871 TTTATCA 1877

RESULT 11

US-10-876-673-5  
; Sequence 5, Application US/10876673  
; Publication No. US20050124035A1  
; GENERAL INFORMATION:  
; APPLICANT: YOKOZEKI, KENZO  
; APPLICANT: OHNO, AYAOKI  
; APPLICANT: HARA, SEIICHI  
; APPLICANT: ABE, ISAO  
; TITLE OF INVENTION: METHOD FOR PRODUCING ALPHA-L-ASPARTYL-L-PHENYLALANINE-BETA-ESTER  
; TITLE OF INVENTION: AND METHOD FOR PRODUCING  
; FILE REFERENCE: 254836USPCT  
; CURRENT APPLICATION NUMBER: US/10/876,673  
; CURRENT FILING DATE: 2004-06-28  
; PRIOR APPLICATION NUMBER: PCT/JP2004/000620  
; PRIOR FILING DATE: 2004-01-23  
; PRIOR APPLICATION NUMBER: JP 2003-016764  
; PRIOR FILING DATE: 2003-01-24  
; PRIOR APPLICATION NUMBER: JP 2003-201819  
; PRIOR FILING DATE: 2003-07-25  
; PRIOR APPLICATION NUMBER: US 60/491,546  
; PRIOR FILING DATE: 2003-08-01  
; NUMBER OF SEQ ID NOS: 27  
; SOFTWARE: PatentIn version 3.3  
; SEQ ID NO 5

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; LENGTH: 2024
; TYPE: DNA
; ORGANISM: Empedobacter brevis
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1908)
; US-10-876-673-5

Query Match          39.8%; Score 771; DB 9; Length 2024;
Best Local Similarity 65.5%; Pred. No. 7.8e-201;
Matches 1144; Conservative 0; Mismatches 600; Indels 3; Gaps 1;

QY 125 CAGTCCGACCTCGCTTATGAGTGAAGACCGAAGTACGAAATCCCA 184
DB 134 CAAAAGCAGATTCTGCTTATGTCGCGCAGATATACGAAATAGAACAAATCCGA 193
QY 185 TCGGAGATGGGAAAAATTTACTCGCATCTACAGTCCAAAGACAAATCCAAAT 244
DB 194 TCGCGATGGTACAAAGTTATTTACGCTATTTATCAGCCAAAGATAAACAAAT 253
QY 245 ATCCAGTTTGTCAATAGAACGCTTACACGCTTTCACCTTATGGCGAAGCAATATA 304
DB 254 ATCCCGTTTGTAAATCGTACGCTTATACAGTTTGGCGCTTATGGTGAATGAATACA 313
QY 305 AAAAAAGCTTGGAAAACTTTCCCAAAATGATCGGTGAAGGCTATATTTCTGTTACCG 364
DB 314 AGAAATCGTTAGGAAATTTTCTTACAGAAATCGCGAAGGTTTATTTTGTATTACCAAG 373
QY 365 ATGTCGTCGCAAGTGGATGACGAGGATGATTTTGAAGATATACGTCGACACAGTACA 424
DB 374 ATGTAGAGGAAATGGATGACGGAAGGCAATTTGAAGATGTTGACCTATAATCTCT 433
QY 425 GCAAGATAAAAAGCAATCGATGAAGTACGATACCTTATGATGCGTGTGAATGTTAC 484
DB 434 CAAAAGTAAAAAGCAATTTGACGAAAGCACAGATACATTTGATACGCTAGAATGCTTG 493
QY 485 AGAAAAATCTCAAAAATTAATGGAAGCAAGCCGGCTCTATGGATTTCTTATCCAGCT 544
DB 494 CTTAAAACTTGAAGAAATTAACAGAAAAAGCTGGAAATTTATGGAATTTGCTATCTCGTT 553
QY 545 TCTATTCTACCTCGGATGTTCAAAACACACCCGAGCTTGAAGCAGTCTCCACACAGG 604
DB 554 TTTATTGCAATAGTTTGGTTTAAATTCGCATCCAACTCTAAAGCCGTTCCGCAAG 613
QY 605 CTCCGCTAACAGACTGTATATCGCGACGACTTCCACCATTAATGGCGTATTTCTTTC 664
DB 614 CCCCCGTACCAATTTGGTTTATGTTAGTGACATTTTATCATATGAGTTTATTTCTTGA 673
QY 665 AGGATGCAATTCATTCATGTCACACTTTTGGTGTCTCTGTCGCAAAACCCATTAACGG 724
DB 674 ATGATTTCTCTCAATTTATGACTTTTGTGTTAAACGTCGCAACCAATTAAGCCAG 733
QY 725 ATCAATTTAAGGCAAAATTCAGTCAAGAGCCGATTAATTAATCTTTTTCAGAG 784
DB 734 ATAAAGGTCGAAACGTTTGAATATPCCAAATAAAGATAATATAGATTTATGCT---AA 790
QY 785 CAGGAACACGCGGGAACCTCAAGAAAAAGTATTTTGGTGAATCCGTAACAAATTTGGAATG 844
DB 791 GTGGCTCTGTAAGAGTTGAAGATAAATATTTGCAAGATAATATCAAGTTTTCAGATG 850
QY 845 ACCTGTTAAGCATCCGACTATGATGATTTTGGAAATCGCGTGTGATCAGAAATCTTT 904
DB 851 AATTATTGCGCATCCAGATTCAGATCAATTTTGGCAAGATCGTAATGTTTACCACATTT 910
QY 905 TACAGAGGTAAACACGACTGTGATGTTGGTGGTTTCTTTGACGCGGAAGTGTCT 964
DB 911 TAACTAACGTGCAACCTGCTGTAATGACGTTTGGAGGTTTATTTGATGCAAGATGCT 970
QY 965 ATGGAACATTTAAGCACTTACCAATCGATGAGATAAAGCAAAAAACAACTCGATTT 1024
DB 971 ACGCGCTTTGAAAGCTATAAGCAATTTGAGAAACAAATCCGAAAGCAACAATATTA 1030
QY 1025 TAGTCGCGGACCTTTGGTATCATGCGGTTGGGTTTGGTGCAGAAAGAACTATTTAGGTG 1084

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RESULT 12

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US-11-050-829-13
; Sequence 13, Application US/11050829
; Publication No. US20050176150A1
; GENERAL INFORMATION:
; APPLICANT: KIRA, IKUO
; APPLICANT: YOKOZEKI, KENZO
; APPLICANT: SUZUKI, SONOKO
; APPLICANT: MIHARA, YASUHIRO
; APPLICANT: HIRAO, YOSHINORI
; TITLE OF INVENTION: MUTANT MICROORGANISM AND METHOD FOR PRODUCING PEPTIDE USING THE
; FILE OF INVENTION: SAME
; FILE REFERENCE: 265063US0

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DB 1031 TGGTTCGCGACCTTGGTTTATGTTGGTTCGTTAGCAACGAAGTACTTTTGGAG 1090
QY 1085 ATATCCAAATTTGAGAAAAAACCAGTATTTATCAGGAACAATTTGAACAACCATTTT 1144
DB 1091 ATATGCAATTTGTCATCGAATACCAAGTGAGCATTTATCAGCAAGAAATAGAAATTT 1150
QY 1145 TCAATATTAATCTAAAGATGAAGAAACTTCGCCCTTCGGAAGCTAACTTTTGGTT 1204
DB 1151 TTAATTAATTAATCTAAAGATGAAGTAAATTTAAACCAACCGAAGCTCAATTTTATTA 1210
QY 1205 CAGGCAAGCAACGAATGGAAACATTTCCGAACAGTGGCCACCAAAAAATGTAGAGACA 1264
DB 1211 CGGATCTTAAGATGGAAACATTTGATGCTTGGCCACCAAAAAATGTAGACAACA 1270
QY 1265 AACTATATCTTCAACCTCAGGGGAACTTGGATTTGACAAAAGTTTCAAGTACAGATTC 1324
DB 1271 AAATTTATTTGCAACAAATGTAATAATAGCTTTTAAATAAACCAATACAACTACTTT 1330
QY 1325 GGGATGAATATGTAAACAGACCTTAATAAACCCTGTTCCGATCAAGTGGGGTAAATCA 1384
DB 1331 TTGACGAATATGTTGCGATCCAAATTTCTCCAGTTCTTATTCAGGAGGAGTTTGA 1390
QY 1385 ACCGAACACGCGAGTATATGTTAGATGATCAACGTTTCGCGCTAGTCCCTGATGTCA 1444
DB 1391 CTCGTTCAAGAGATATATGTTGATGATCAACGTTTCTTCTACTGCTCTGATGTTA 1450
QY 1445 TGGTTTATCAAAACGGAACCGTTTGAACGAGGACCTGACGATAGTAGGCCCAATCAAAA 1504
DB 1451 TGGTGTATCAATCTGATATTTTGCAGAAAGATATTTACGCTTGTCTGTTATCAATC 1510
QY 1505 TTCTCAAAAGTTTCTTCAACAGGAACAGAGCGGACTATGTTGTCAAACTGATGAGTTT 1564
DB 1511 ATTTAGTGGTTTCTACTACGGGAACAGACGCTGATTTATGTTGAAAAATTTGATTT 1570
QY 1565 ATCCGAATGATGACGCAAGTTTATCAAGGAAAAACAATGCTGGATATCAAAATGATG 1624
DB 1571 ATCTCGAAAAACAGCCCAAAATTTAATAAATAATGCTGGATATCAAAATTTGATTC 1630
QY 1625 GTGTGAGATCATGCGGGGAAATACCGAAATGTTTTCGATAAAGCGCAGGCTTTGACTC 1684
DB 1631 GTGCAGAAATTTATGCGCGGAAATATAGAAATAGTTTCTTAAACCCGAGCTATG 1690
QY 1685 CAGGTATGTCGAAAAAGGTGAATTTTGAATGCGCAGAGCTTGGCGGATACCTTTCA 1744
DB 1691 CCAATAAAGAAACAAATGTAACGTAACAGATGCGCAGATTTGGACATACATTTAAGA 1750
QY 1745 GACATCGCAATATGTTTCAAGTACAAACTCATGTTTTCGCTGGCAGAACCAATCC 1804
DB 1751 GACATCGCAATATGATTTCAAGTTCAGAACAGTGTGTTTCTTTAGCAGATCGCA 1810
QY 1805 AGGTGTTTATGACACCTTATACAGCTACCAAGCTTTCGCAAAAGCTACCCCAAC 1864
DB 1811 AACAAATTTGAATGTTTTCAGAAAGCACTTCTAAAGATTTATTAACAAACCAAC 1870
QY 1865 TTTTTC 1871
DB 1871 TTTATCA 1877

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Query Match 39.8%; Score 771; DB 10; Length 2024;  
Best Local Similarity 65.5%; Pred. No. 7.8e-201;  
Matches 1144; Conservative 0; Mismatches 600; Indels 3; Gaps 1;  
US-11-050-829-13

1025 TAGTCGCGGACCTTGGTATCATGCGCGTGGTTCGTCGAGAGGAACATATTTAGGTG 1084  
1031 TGGTTCCGCGACCTTGGTTCATGCTGGTGGTTCGTCGACACGAGTACTTTTGGAG 1090  
1085 ATATCCAAATTTGAGAAAAAACCAGTATTAATATCAGAGAAACAAATTTGAAACAAACATTTT 1144  
1091 ATATGCAATTTGTCATCGAATACAGTGCAGTATATCAGCAAGAAATAGATTTGCCCTTTT 1150  
1145 TCAATATTTACTAAAGATGAAGAAACCTTCGCCCTTCCGAGCTAACATTTTGTGTTT 1204  
1151 TTAATTAATTTACTTAAAGATAAAGTAATTTTAAACCAACCGAAGCTACAAATTTTATTA 1210  
1205 CAGCAGCAACGAAATGGAACATTTTCGAAACAGTGCACCAAAATCTAGAGACAAAA 1264  
1211 CGGGATTAACGAATGGAACAAATTTGATGCTTGGCCACCAAAAAATGTAAACACAAA 1270  
1265 AACTATATCTCCAACTCAGGGGAAACCTTGGATTTTGACAAAAGTTCAACGTACAGATTCCT 1324  
1271 AAATTTATTTGCAACAAATGTAATAATAGCTTTTAAATAAACCAATACACACTACTT 1330  
1325 GGGATGAATATGTAAACAGACCTTAATAAATCTGTTCCGATCAAGGTGGGGTAAATCAAA 1384  
1331 TTGACGAATATGTTGACAGATCCAAATCTCCAGTTCCTTAATTCAGAGGAGTTTGTAGAA 1390  
1385 ACCGAAACAGCGAGTATATGATGATGATCAACGTTTCGCGGCTAGTCCGCTGATGTCA 1444  
1391 CTCGTTCAAGAGAAATATATGTCGATGATCAACGCTTGTCTTCTACTCGTCTGATGTTA 1450  
1445 TGGTTTATCAAAACGGAACCGTTTGACGAGGACCTGACGATAGTAGGCCCAATCAAAAACT 1504  
1451 TGGTGATCATCTGATATTTTGAAGAGATATTAACGCTGCTGCTCTGTATCAATC 1510  
1505 TTCTCAAAAGTTTCTCAACAGGAAACAGACGCGACTATGTTGTCAAACTGATTTGACGTTT 1564  
1511 ATTTAGTGGTTTCTACTACGGGAAACAGACGCTGATTAATGTTGTAAATTTGATTTGATGTT 1570  
1565 ATCCGAATGTCAGCAAGTTATCAAGGAAACAAATGCGCTGATATCAAAATGATGGTAC 1624  
1571 ATCTGAAAAACACGCCAAAAATTTAATAACAAATTAATGGCTGGATATCAAAATTTGATTC 1630  
1625 GTGGTGAGATCATGCGCGGGAATAACCGAAATGGTTTCGATAAAGCGCAGGCTTGACTC 1684  
1631 GTGCAGAAATTTATGCGCGGAAATATAGAAATAGTTTCTTAACCCCGAAGCTATGGTTC 1690  
1685 CAGGTATGGTCGAAAAAGGTGAATTTTGAATGCCAGAGCTTGGCATACCTTTCAAAAAAG 1744  
1691 CGAATAAAGAAAAAATGTAACGTACAGATGTCAGATGTTGGACATACATTTAAGAAAG 1750  
1745 GACATCGCAATTTGTTTCAGGTACAAACTCATGTTTCCGCTGCGACAGAGAAATCCAC 1804  
1751 GACATCGCAATTTGATTTCAAGTTTCAAGTTTGGTGGTTCCTTTTAGCAGATCGCAATTCGC 1810  
1805 AGGTGTTTTAGCACCTTATACAGTACCAAGCTGATTTCCGAAAGCTGATTTCCGAAAGCTACCAACCTGA 1864  
1811 AACAAATTTAGAAATGTTTACGAAGCACTTCTAAGATTTATTAACAAACGCAACGAA 1870  
1865 TTTTTC 1871  
1871 TTTATCA 1877

RESULT 13  
US-11-085-576-11  
; Sequence 11, Application US/11085576  
; Publication No. US20050227325A1



GENERAL INFORMATION:  
; APPLICANT: MIHARA, YASUHIRO  
; TITLE OF INVENTION: RECOMBINANT POLYNUCLEOTIDE  
; FILE REFERENCE: 268258US  
; CURRENT APPLICATION NUMBER: US/11/085,576  
; CURRENT FILING DATE: 2005-03-22  
; PRIOR APPLICATION NUMBER: JP 2004-083481  
; PRIOR FILING DATE: 2004-03-22  
; NUMBER OF SEQ ID NOS: 28  
; SOFTWARE: PatentIn version 3.3  
; SEQ ID NO 11  
; LENGTH: 2024  
; TYPE: DNA  
; ORGANISM: Empedobacter brevis  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (61)..(1908)  
US-11-085-576-11

Query Match 39.8%; Score 771; DB 10; Length 2024;  
Best Local Similarity 65.5%; Pred. No. 7.8e-201;  
Matches 1144; Conservative 0; Mismatches 600; Indels 3; Gaps 1;

QY 125 CAGTCGCCGACCTGCTATGTTAGAGATCATATTGAAAGACCGAAGTAGCAATTCCTCA 184  
DB 134 CAAAAGCAGATTCTGCTTATGTGCGCGACAATTACGAAAAAATAGAACAAAGTAATTCGGA 193

QY 185 TCGGAGATGGGAAAAATTTTACTGCGATCTACAGTCCAAAGACCAAAATCCCAAGAAAT 244  
DB 194 TCGCGATGGTCAAAAGTTATTTACAGCTATTTATCAGCCAAAAGATATAAACAACAAT 253

QY 245 ATCCAGTTTTGCTCAATAGAACGCTTACACGTTTTTCACTTATGGGAGAACCAATATA 304  
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QY 305 AAAAAAGCTGGGAACTTTCCCAATGATGCGTGAAGGCTATATTTGTTTACACAGG 364  
DB 314 AGAAATCGTTAGGAAATTTCTACAGAAATGCGGAAAGTTTATTTTGTGTACCAAG 373

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DB 554 TTTATTGACCAATGATTTGGTTAATTCGCATCCAACTCTAAAAGCGGTTTGGCCACAAG 613

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QY 665 AGGATGCAATTTACATTCATGTCACACTTTGTTGTCCTCTGTCCTCAAAACCCCAATTA 724  
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RESULT 14

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QY 1865 TTTTTC 1871  
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US-10-763-179-17  
; Sequence 17, Application US/10763179  
; Publication No. US20040204577A1  
; GENERAL INFORMATION:  
; APPLICANT: HARA, SEIICHI  
; APPLICANT: YOKOZEKI, KENZO  
; APPLICANT: ABE, ISAO  
; APPLICANT: TONOUCHI, NAOTO  
; APPLICANT: JOJIMA, YASUKO  
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES  
; FILE REFERENCE: 247848USO  
; CURRENT APPLICATION NUMBER: US/10/763,179  
; PRIORITY FILING DATE: 2004-01-26  
; PRIOR APPLICATION NUMBER: JP 2003-16765  
; PRIOR FILING DATE: 2003-01-24  
; PRIOR APPLICATION NUMBER: US 60/491,612  
; PRIOR FILING DATE: 2003-08-01  
; NUMBER OF SEQ ID NOS: 27  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 17  
; LENGTH: 1974  
; TYPE: DNA  
; ORGANISM: Pedobacter heparinus  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (61)..(1935)  
; OTHER INFORMATION:  
US-10-763-179-17

Query Match 35.9%; Score 694.6; DB 8; Length 1974;  
Best Local Similarity 61.7%; Pred. No. 8.2e-180;  
Matches 1149; Conservative 0; Mismatches 699; Indels 15; Gaps 2;  
QY 79 TGCCTAACTTTAGCCCTTTTAAAGCCGACGATGACATGCTCAAAAGCTGCGACTCG 138  
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QY 139 GCTTATGTTAGAGATCATTATGAAAGACCGAAGTAGCAATTCCTATCGAGATGGGAA 198  
DB 142 GCTTATAGCTGAGAACTATACCAAAATAGAAAGCTGATCCCTATCGGGATGGCAAT 201  
QY 199 AAATATTTACTGCGATCTACAGTCCAAAGACAAATCCAAAGAAATATCCAGTTTGTCT 258  
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QY 259 AATAGACGCCCTACACGGTTTACCTTATGGGCGAGAACGAAATATAAAAGCTTTGGGA 318  
DB 262 AACCGTACTCTTATACCGTTTTCGCTTATGGCGAAAAACAATTTATAAAACAAGCCTTGGC 321  
QY 319 AACTTTCCCAATGATCGGTGAGGCTATATTTTCGTTTACGAGATGTCGGTGGCAAG 378  
DB 322 CCTCTCCGCTCTTTATAAAGAGGCTTTATCTTTGTTTATCAGATGTAAGGGGCAAA 381  
QY 379 TGGATGACGAGAGTGTATTTTGAAGATATACGTCCGACACAGTACAGC- --AAAGATAAA 435  
DB 382 TGGATGAGTGAAGGAAATTTGAAGACGTAGGCGCGAAATAGCCAGCAAGAACGCAAA 441  
QY 436 AAAGCAATCGATGAAAGTACGATACCTTATGATGCGTTTGAATGTTTACAGAAATATCTC 495  
DB 442 ACGGATATGATGAAAGTCCGATCTTATGATACGATCGACTGGCTGATCAGGAACATT 501  
QY 496 AAAAATATATGCAAGACCGGCTCTATGGGATTTCTATCCAGGCTCTTATCTTACC 555  
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QY 556 GTGCGATTGGTCAAAACACACCGAGCTTGAAGGAGTCTCCCAACAGGCTCCCGTAAAC 615  
DB 562 GCTGCCCTACAGATGCGCATCCATCTTTAAAGGAGGATGCGCCAGGCTCCCGTTACC 621  
QY 616 GACTGGTATATCGGCGACGATTCACCAATATGCGGATGTTTCTTTCAGATGCAATTT 675  
DB 622 GACTGGTATATAGGCGATGATTTTATCAATATGCGACCTTGTCTTTCAGATATCTTT 681

QY 676 ACATTATGTCAACCTTTGGTGTCCCTCGTCCAAAACCACTTACACCGGATCAATTTAAG 735  
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DB 922 AAACCTGCAGTTTGGTGGTCTTCTTGTATGAGGAGACCTTTTACGGTACGCTT 981  
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DB 1222 GAATGGAAGAAATTTAGCTCTGGCCACTCAGGATACAGAAAGAAACATTTATACCTG 1281  
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DB 1282 CAGCCCAATGCAAACTGAGCTTTGAGAAGGTACAGCGGACCGACAGCTGGGATGAAT 1341  
QY 1336 GTAACAGACCTAATAAACCTGTTCCGATCAAGGTGGGGTAAATTCAAAAACGAAACAGG 1395  
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DB 1702 CCTGGAACAAATTAACAAAGTAAACTATGCGCTTCGGATGTAGCCCATACCTTTAAAAA 1761  
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Qy 1864 ATTTTTCAGGATGTAAGCAATGCCACATACATCGAATTTTCTGTCTCTCAAGATTAGCAG 1923
Db 1882 ATCTTCCACGATGTACACAATGCATCTGCAATTTACGGTAAACGTACTGAAACCTTTAAAC 1941
Qy 1924 GTA 1926
Db 1942 GGA 1944

RESULT 15
US-10-855-533-17
; Sequence 17, Application US/10855533
; Publication No. US20050019864A1
; GENERAL INFORMATION:
; APPLICANT: HARA, SEIICHI
; APPLICANT: YOKOZAKI, KENZO
; APPLICANT: ABE, ISAO
; APPLICANT: TONOUCHI, NAOTO
; APPLICANT: JOJIMA, YASUOKO
; TITLE OF INVENTION: NOVEL PEPTIDE-FORMING ENZYME GENES
; FILE REFERENCE: 253783USO
; CURRENT APPLICATION NUMBER: US/10/855,533
; CURRENT FILING DATE: 2004-05-28
; PRIOR APPLICATION NUMBER: PCT/JP03/09468
; PRIOR FILING DATE: 2003-07-25
; PRIOR APPLICATION NUMBER: JP 2002-218957
; PRIOR FILING DATE: 2002-07-26
; PRIOR APPLICATION NUMBER: JP 2003-16765
; PRIOR FILING DATE: 2003-01-24
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 17
; LENGTH: 1974
; TYPE: DNA
; ORGANISM: Pedobacter heparinus
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (61)..(1935)
; OTHER INFORMATION:
US-10-855-533-17

Query Match 35.9%; Score 694.6; DB 8; Length 1974;
Best Local Similarity 61.7%; Pred. No. 8.2e-180;
Matches 1149; Conservative 0; Mismatches 699; Indels 15; Gaps 2;

Qy 79 TGCCTAACTTTAGCGCTTTTAAGCGCAAGCCAGTTTACATGCTCAACAGCTGCCGACTCG 138
Db 82 TCCTTCATTTTCTCTTATTTTACCAGTCTTTCTGCTTCTGCAACAGTCCGACTCT 141
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Qy 436 AAAGCAATTCGATGAAAGTACCGATACCTATGATGCGCTTTGAATGGTTACAGAAAAATCTC 495
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Qy 556 GTCGGATTTGGTCAAAACACACCGAGCTTGAAGGCGAGTCTCCACAGGCTCCCGTAACA 615
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QY 1924 GTA 1926  
Db 1942 GGA 1944

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